A5173-6F

DEPARTMENT OF POLICY DEVELOPMENT AND RESEARCH

FINDINGS

Providing Employee Health Benefits: How Firms Differ

HIAA

Health Insurance Association of America

Providing Employee Health Benefits: How Firms Differ

Results of a 1989 National Survey of Employers

DEPARTMENT OF POLICY
DEVELOPMENT AND RESEARCH

1990

HIAA

Health Insurance Association of America

Findings shares timely technical information, data and analyses primarily with HIAA member companies. The audience and mailing list vary, depending on the topic. It is published intermittently by the Department of Policy Development and Research of the Health Insurance Association of America, 1025 Connecticut Avenue, NW, Washington, D.C. 20036. **For further information about the material in this report, contact Clare Lippert, (202) 223-7805.**

Contents

Contents iii

Tables vii

Figures x

Preface xi

I. Readers Guide 1

Methods 2

II. Small Firms in the Economy 3

Introduction 3
Small Businesses 3
Employment by Industry 3
Firm Volatility 5
Financial Status 5
Corporate Structure 5
Unionization 5
Work Force Composition 5
Tenure 6
Occupational Composition 6
Wages and Compensation Among Small and Large Firms 7
Effects of Economic Change on Small Firms 7
Employment by Firm Size 7
Self-employment 8
Unions 8
Service Sector Employment 8
Productivity 8
Conclusion 9

III. Characteristics of Firms That Do and Do Not Offer Health Insurance 11

Size 12
Industry 13
Region 15
Metropolitan and Non-metropolitan Location 16

Firms with Branch Locations 16
Age of Firm 17
Wage Levels 17
Low-wage workers 17
Wages and Industry 19
Labor Fluctuation 20
Turnover 20
Wages and Turnover 23
Industry and Turnover 23
Full-time Employment 24
Employees Who Work for Firms that Offer Health Benefits 26
Who Is Eligible for Coverage 27
Who Is Covered 28
Conclusion 29

IV. Why Employers Do Not Offer Coverage 31

Expense 33
Low Profits 33
Future Health Costs 34
No Acceptable Plan 34
Low Employee Interest 35
Not Needed to Attract Employees 35
Turnover 36
Wage Structure 37
Conclusion 37

V. Which Employers Drop or Add Coverage? 39

Size 39
Industry 40
Region 41
Firms with Branch Locations 41
Age of Firm 41
Labor Fluctuation 43
Full-time Employment 44
Premium Cost 45
Panel Reasons for Not Offering Health Benefits 45
Conclusion 46

VI. Types and Characteristics of Health Plans 47

Conventional Insurance and Alternative Delivery Systems 47
Health Plan Enrollment 51
Length of Time with Carrier 54
Satisfaction Levels 55
Cost Sharing 56
Premium Sharing 58
Cost Containment 61
Benefit Levels 62

Conclusion 64

Appendix A 65

HIAA Employer Survey 65
The Sample 66
Correlation Statistics 68
Panel Disposition Code 69

Appendix B 71

Chapter III Tables 71
Chapter IV Tables 76
Chapter V Tables 77
Chapter VI Tables 79

Bibliography 81

Tables

Chapter II

Table II-1: Distribution of Employment, by Industry, by Firm Size, 1989 4
Table II-2: Percent of Work Force Having Various Years of Tenure, by Industry, 1989 6

Chapter III

Table III-1: Percent of Firms that Do and Do Not Offer Health Benefits, by Firm Size, 1989 13
Table III-2: Percent of Firms Offering Health Benefits, by Industry, by Firm Size, 1989 14
Table III-3: Percent of Firms Offering Health Benefits, by Region, 1989 15
Table III-4: Percent of Firms Offering Health Benefits, by Existence of Branch Locations, 1989 16
Table III-5: Percent of Firms Offering Health Benefits, by Age of Firm, 1989 17
Table III-6: Employee Wage Distributions Among Firms that Do and Do Not Offer Health Benefits, by Firm Size, 1989 18
Table III-7: Percent of Employees Earning Less than $10,000 Annually at Firms that Do and Do Not Offer Health Benefits, by Industry, 1989 20
Table III-8: Labor Volatility Among Small Firms, by Firm Size, 1989 22
Table III-9A: Percent of Employees and Firms Experiencing Various Levels of Turnover, Firms with Fewer than 25 Employees, 1989 22
Table III-9B: Percent of Employees and Firms Experiencing Various Levels of Turnover, Firms with Fewer than 25 Employees, 1989 23
Table III-10: Labor Fluctuation Rates Among Small Firms with Various Proportions of Low-wage Workers, 1989 23
Table III-11: Labor Fluctuation Rates Among Firms that Do and Do Not Offer Health Benefits, by Industry, 1989 24
Table III-12: Percent of Full-time Employees for Firms that Do and Do Not Offer Health Coverage, by Firm Size, 1989 25
Table III-13: Percent of Employees Working for Firms that Offer Health Benefits, by Region, by Firm Size, 1989 26
Table III-14: Percent of Employees Working for Firms that Offer Health Benefits, by Industry, by Firm Size, 1989 27
Table III-15: Percent of Full-time Employees Eligible for Coverage Among Employers Offering a Health Plan, by Region, by Firm Size, 1989 28
Table III-16: Percent of Full-time Employees Eligible for Coverage Among Employers Offering a Health Plan, by Industry, by Firm Size, 1989 28
Table III-17: Percent of Full-time, Eligible Employees Covered by Employer-sponsored Plan, by Region, by Firm Size, 1989 29

Table III-18: Percent of Full-time Eligible Employees Covered by Employer-sponsored Plan, by Industry, by Firm Size, 1989 29

Chapter IV

Table IV-1: Percent of Firms Citing Particular Reasons for Not Offering Health Insurance..... 32
Table IV-2: Importance of "Expense" as a Reason for Not Offering Health Insurance..... 33
Table IV-3: Importance of "Low Profits" as a Reason for Not Offering Health Insurance.....33
Table IV-4: Percent of Firms Citing "Low Profits" as Very Important Reason for Not Offering Health Insurance, by Proportion of Low-wage Workers..... 34
Table IV-5 : Importance of "Future Costs" as a Reason for Not Offering Health Insurance.....34
Table IV-6: Importance of "No Acceptable Plan" as a Reason for Not Offering Health Insurance 34
Table IV-7: Importance of "Low Employee Interest" as a Reason for Not Offering Health Insurance 35
Table IV-8: Importance of "Not Needed to Attract Employees" as a Reason for Not Offering Health Insurance 35
Table IV-9: Importance of "High Turnover" as a Reason for Not Offering Health Insurance 36
Table IV-10: Percent of Firms Citing "High Turnover" and "Expense" as a Very Important Reason for Not Offering Health Benefits, by Level of Turnover..... 36
Table IV-11: Percent of Firms Citing a Particular Reason as Being a Very Important Explanation for Not Offering Health Coverage, by Proportion of Employees Earning Under $10,000, 1989..... 37

Chapter V

Table V-1A: Percent of Firms Changing Coverage Status, by Firm Size, 1988 to 1989 39
Table V-1B: Percent of Firms in Each Size Category, by Coverage Status, 1988 to 1989..... 40
Table V-2: Percent of Firms Changing Coverage Status, by Industry, 1988 to 1989..... 40
Table V-3: Percent of Firms Changing Coverage Status, by Region, 1988 to 1989..... 41
Table V-4: Percent of Firms Changing Coverage Status, by Presence of Other Branches, 1988 to 1989..... 41
Table V-5: Percent of Firms Changing Coverage Status, by Age of Firm, 1988 to 1989..... 42
Table V-6: Percent of Employees at Various Wage Levels, by Coverage Status of Firm, 1988 to 1989 42
Table V-7A: Percent of Firms in Each Coverage Category, by Their Proportion of Low-wage Workers, 1988 to 1989 43
Table V-7B: Percent of Firms Having Various Proportions of Low-wage Workers, by Coverage Status of Firm, 1988 to 1989..... 43
Table V-8: Average Fluctuations in Work Force, by Changes in Coverage Status, 1988 to 1989 44
Table V-9: Percent of Full-time Workers, by Changes in Coverage Status, 1988 to 1989..... 44
Table V-10: Changes in Premiums for Firms with Fewer than 25 Employees, by Coverage Status, 1988 to 1989..... 45
Table V-11: Percent of Firms Citing a Particular Reason as Very Important in the Decision Not to Offer Health Insurance, Among Firms that Dropped Coverage or Had No Coverage Either Year, 1988 and 1989..... 46

Chapter VI

Table VI-1: Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Firm Size, 1989 48

Table VI-2: Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Region, by Firm Size, 1989 49

Table VI-3: Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Industry, by Firm Size, 1989 50

Table VI-4: Percent of Employees Enrolled in Various Plan Types, by Region, by Firm Size, 1989 (Percent of Enrollees) 52

Table VI-5: Percent of Employees Enrolled in Various Plan Types, by Industry, by Firm Size, 1989 53

Table VI-6: Average Number of Years Employer Has Offered Plan Through Current Carrier, by Firm Size, 1989 54

Table VI-7: Percent of Firms that Have Been with the Same Carrier Fewer than Five Years, by Plan Type, by Firm Size, 1989 54

Table VI-8: Firms' Degree of Satisfaction with Conventional Health Plan, by Tenure of Plan, by Firm Size, 1989 (Percent of Firms) 56

Table VI-9: Expectations About Continuing Conventional Plan, by Tenure of Plan, by Firm Size, 1989 (Percent of Firms) 56

Table VI-10: Percent of Employees Whose Conventional Coverage Has Various Cost-sharing Features, by Firm Size, 1989 57

Table VI-11: Total Monthly Premium and Employee Cost Sharing for Family and Individual Plans, by Firm Size, 1989 58

Table VI-12: Total Monthly Premium and Average Employer and Employee Share for Conventional Plans, by Region, 1989 59

Table VI-13: Total Monthly Premium and Average Employer and Employee Share for Conventional Plans, by Industry, 1989 59

Table VI-14: Percent of Employees Whose Employer Pays All, Part, or None of Conventional Plan Premium, by Industry, 1989 60

Table VI-15: Percent of Employees Whose Employer Pays All, Part, or None of Conventional Plan Premium, by Region, 1989 60

Table VI-16: Share of Premium Paid by Employees in Conventional Plans, by Firm Size, 1989 61

Table VI-17: Percent of Firms with Conventional Plans that Include Various Cost-containment Techniques, 1988 and 1989 62

Table VI-18: Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Firm Size, 1989 63

Table VI-19: Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Region, 1989 63

Table VI-20: Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Industry, 1989 64

Figures

Chapter III

Figure III-1: Larger Firms Are More Likely to Offer Health Benefits, 1989 13
Figure III-2: Percent of Firms Offering Health Benefits, by Industry 15
Figure III-3: Firms that Do Not Offer Coverage Have More Workers Earning Less than $10,000 18
Figure III-4: Small Firms that Offer Coverage Have Lower Rates of Turnover 21
Figure III-5: Firms that Offer Coverage Have More Full-time Employees 25

Chapter IV

Figure IV-1: Percent of Firms Citing Particular Reasons as a Very Important Reason for Not Offering Health Insurance 32

Chapter VI

Figure VI-1: Percent of Firms Offering Various Plan Types for Firms Offering a Plan, by Firm Size, 1989 48

Preface

Providing Employee Health Benefits: How Firms Differ presents data on the characteristics of employers and the health coverage they offer. The data derive from HIAA's 1989 employer survey, in which 2,621 employers participated. The 1989 survey posed new questions and refined others asked in previous HIAA employer surveys. The result is a more comprehensive look at the employee health benefits picture.

We believe this to be the most statistically reliable source of health benefit data for employers of all sizes, and thus of value to researchers and managers alike. Moreover, the data are important to decision makers, policy analysts and individual carriers interested in extending health insurance coverage to firms and employees who have none. More specifically, this document contains data whose policy implications may well be significant. For example, we present the only employer-based data we know of that correlates employee turnover with the propensity to offer health benefits. Although the data may not yield the true rate of employee turnover for a given category of employers, the large difference in turnover rates (between employers that do offer coverage and those that do not) constitutes important new information.

Many people contributed to the development of *Providing Employee Health Benefits: How Firms Differ*. These include Kevin Haugh, Cynthia Sullivan, Steven DiCarlo, Jon Gabel, Jude Payne, Cindy Jajich-Toth, Ron Kammerer, and Susan Coronel; in particular, I wish to acknowledge Elliot Wicks and Clare Lippert, the project managers for this report.

Experts from outside HIAA (including member companies and independent agencies) also provided assistance in developing the document. I especially with to thank Emily Andrews of Fu Associates for her contributions, as well as Jack Rogers of the Congressional Budget Office, Mark Merlis of the Congressional Research Service, and Larry Bartlett of Health Systems Research for their review and comments.

Richard E. Curtis, Director
Department of Policy Development and Research

I. Readers Guide

Assuring access to medical care for all is an objective that has the support of most Americans. While approximately 212 million Americans have private or public coverage for health care, more than 30 million people do not. Finding solutions to the access problem is a high priority for the Health Insurance Association of America (HIAA). Further, individual HIAA member companies are interested in serving the health coverage needs of employers and their employees. Such public policy and private market efforts have sometimes been hampered by inadequate information. Insurers have indicated a need for better data to assess potential areas of health insurance market growth. This document is an attempt to help fill part of the information gap. It focuses on characteristics of small businesses, since many of the people lacking health coverage are employed in such businesses. Because any solution to the access problem is likely to rely on employment-based health insurance, it is important to have information about the characteristics of small employers, where much of the problem is concentrated.

A majority of Americans are covered by insurance purchased through employers. Employment-based insurance covers 139.4 million workers and dependents. In fact, 73 percent of American workers have health insurance coverage through an employer-sponsored plan: either directly from their own employer or through their spouse's employment. However, nearly 80 percent of the minority (15.7 percent) of Americans who are uninsured are either employed or dependents of employed persons (Chollet, 1990), and these people tend to be concentrated in small firms. Of the employed uninsured, one-half work for small firms, that is, firms with fewer than 25 employees.

Since employer-based insurance is the primary source of health coverage for Americans, it is important to determine if there are characteristics common to firms that do not offer health benefits. If we wish to develop policies to promote broader employment-based coverage, it would be useful to know if certain characteristics are strong predictors of whether or not a firm will provide benefits. This resource document grew out of a need for data that examines these relationships for the purpose of policy development, especially in the small employer market.

The data available on these issues from other sources fall short in two ways. First, surveys done by the Bureau of Labor Statistics concentrate on medium and large firms, 99 percent of which provide health insurance. Second, studies of smaller firms have been plagued by low response rates and/or are not based on nationally representative samples.

The Health Insurance Association of America's 1989 Employer Survey is not subject to either of these criticisms. The sample was drawn (and is weighted) to be nationally representative based on firm size, industry, and region of the country.[1] This document is based on analysis of 2,621 responses to the survey, which represents a 66 percent response rate.[2] This sample size permits us to present statistically reliable "second-order" cross-tabulations—for example, to distinguish between firms that do and do not offer health insurance by industry and firm size.

This reference document is structured to serve as a source of data, and is composed primarily of tables. The text gives general background, interrelates various statistics, and emphasizes

[1]For the most part, tables in the text present weighted percentages rather than absolute numbers of responses. Readers interested in knowing the absolute number of responses for particular cells within tables will find this detail in Appendix II.

[2]Further technical information on the sample, response rates, and the weighting scheme can be found in Appendix I.

particularly interesting findings. Although the tables can be interpreted apart from the text, the analysis and background are helpful in capturing the nuances and implications of relationships.

Chapter II compares the labor and economic conditions of small and large firms. This allows an understanding of the economic situation of those firms that employ a large proportion of uninsured workers, primarily firms with fewer than 25 employees. This section is not based on HIAA Employer Survey data, but rather on various years of the Current Population Survey and Bureau of Labor Statistics Reports.

Chapter III carefully examines firm and labor characteristics which may influence firms *not* to offer health benefits. The data in this and the following sections are drawn from the 1989 Employer Survey, with references to findings of other surveys, where appropriate.

Chapter IV investigates why employers choose *not* to offer health benefits. Employers were asked to rate how important each of seven commonly cited reasons was to their decision not to provide coverage. These responses were then juxtaposed against other firm characteristics found to be important in an employer's decision to offer health benefits as reported in Chapter III.

Chapter V attempts to distinguish between firms that are likely to add and those that are likely to drop health insurance benefits. This analysis is based on responses from 1,096 firms that participated in the Employer Survey in both 1989 and 1988. Thus, we are able to compare firms that added or dropped coverage to firms that had coverage both years or firms that did not have coverage in either year.

Chapter VI highlights the types and characteristics of health plans that firms currently offer. This includes types of plans offered, premiums, cost-sharing, and benefit levels. Variations in these characteristics are presented by firm size, region, and industry. In essence, this section is the health care market backdrop against which some firms chose not to offer health benefits.

Methods

We define a firm as the aggregate of all establishments owned by a parent company. Thus a firm may consist of a single establishment or include subsidiaries and multiple establishments. Previous research has documented the relationship between firm size and the provision of health insurance (U.S. Department of Labor, 1977; Malhotra *et al.*, 1980; U.S. Small Business Administration, 1988). For this reason, our data is divided, for the most part, into four discrete categories: under 10 employees, 10 to 24 employees, 25 to 99 employees, and more than 100 employees. On occasion, these size breaks are altered to keep a sufficient number of firms in a cell to assure statistical reliability, to allow comparisons with previous research or for ease of presentation.

Firms are classified into industries based on their principal product or activity in accordance with the Standard Industrial Classification (SIC) Manual, Office of Management and Budget. Table A-3, in Appendix A, details the number of employed persons by industry as of 1987. Industries are classified into three major sectors: goods producing, service producing, and government. A broader classification—private sector and public sector— is sometimes also used. The private sector includes goods-producing and service-producing industries, whereas the public sector includes government agencies.

Regional classifications for our survey are derived from the Bureau of the Census' Current Population Survey. Table A-4 in Appendix A lists the states in each of the four regional groups, and Table A-5 shows the number of employees in each region of the United States as of 1988.

II. Small Firms in the Economy*

By Emily Andrews and Clare Lippert

Introduction

The vast majority of American businesses are small. According to the Small Business Administration, firms that employ fewer than 20 persons accounted for 87 percent, or 3.3 million, of 3.8 million firms in 1986.[3] In 1988, businesses with fewer than 25 employees employed 25 percent of all private-sector non-farm workers (Piacentini, 1990).[4] These small firms are an appropriate focus for attention by those who are concerned with expanding health coverage, for two reasons: they employ a significant portion of the work force, and a high proportion of these firms do not offer health coverage. As noted earlier, Americans are typically covered by health insurance through policies purchased by their employers. Nearly 150 million Americans are insured through employment-based plans. Yet most of the *uninsured*, nearly 80 percent, are also employed (or dependents), and a disproportionate number of these are employed by small firms. In order to develop effective policy options to address the problem of the employed uninsured, we must first understand the economic situation of these small firms (which, for purposes of this analysis, we define as firms employing fewer than 25 employees).

In the material that follows, we look first at the characteristics that distinguish small firms from larger firms, and second at trends in the economy that have had particularly strong effects on smaller firms.

Small Businesses

When developing or analyzing public policy options related to small employers, it is critical to understand that small firms are not simply smaller versions of large companies. They employ a different work force, provide different jobs, vary by industry and occupation, and have different corporate structures.

Employment by Industry

Employment by industry is strikingly different for the smallest and largest firms. In 1983, 38 percent of employees in small (fewer than 25 employees) firms worked in the service industry and 25 percent were employed by retail trade firms. In contrast, service workers represented only 15 percent of employment in very large (more than 1,000 employees) firms, while retail trade accounted for 18 percent of this work force. Thirty-nine percent of employees of the largest

---

* The material and analysis in this chapter draw heavily from the following source, previously published by one of the authors, who was on the faculty of the University of Rhode Island during the time this chapter was prepared: Emily S. Andrews, *Pension Policy and Small Employers: At What Price Coverage?*, Washington, D.C.: Employee Benefit Research Institute, 1989.

[3]The Small Business Administration's Small Business Data Base (SBDB) excludes government employment, but covers approximately 93 percent of full-time business activity, generally including firms with at least one paid employee, a Dun and Bradstreet credit rating or using insurance markets. (SBA, 1989.)

[4]1988 CPS numbers are not out for all categories discussed in this section. When available, we use them, otherwise the data is from the 1983 May CPS Pension Supplement.

firms work in the manufacturing industry, while manufacturing firms employ only 10 percent of small-firm employees. Given that health benefit provision decreases with size of firm and that small firms dominate some industries, these industries may show higher rates of working uninsured persons. Table II-1 shows the distribution of employment by firm size, by industry, in 1983.

Shifts in firm size have occurred within industries, and these shifts have usually been masked by economy-wide data. For example, the employment share of manufacturing firms with more than 1,000 workers fell from 58 percent of the manufacturing work force in 1979 to 53 percent in 1983. Thus, the trend over this period for the manufacturing industry was toward smaller firms. This trend was offset in the aggregate by a shift in the service-producing industries toward employment in larger firms. Because the provision of health benefits is known to vary with firm size, it is important to examine changes in firm size within industries to develop a full picture of developments in health insurance coverage.

Table II-1
Distribution of Employment, by Industry, by Firm Size, 1983

		Firm Size				
Industry	All Firms	Fewer than 20 Employees	25-99 Employees	100-499 Employees	500-999 Employees	1000 or More Employees
Total Employment	91,029,639	16,661,137	15,266,424	13,374,496	4,781,354	40,946,227
				Percent		
Total	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	1.0	2.6	1.3	0.9	0.7	0.4
Mining	1.2	0.9	1.0	0.9	1.0	1.6
Construction	5.5	12.6	9.3	5.7	3.3	1.4
Manufacturing	25.1	10.0	19.8	25.2	26.8	32.9
Services	27.0	23.2	23.6	34.4	37.3	26.1
Wholesale Trade	6.9	12.1	10.0	6.5	4.5	4.0
Retail Trade	18.8	27.9	23.3	14.2	12.9	15.6
Transportation*	6.7	3.9	4.9	4.7	4.8	9.3
Finance*	7.8	6.8	6.8	7.4	8.5	8.6

*Transportation includes communications. Finance includes insurance and real estate.
Source: Small Business Administration USEEM data base, 1988.

**Establishment Size.* A corollary to firm size, establishment size,[5] has decreased across all industries and firm sizes. This change may have its roots in changing economic conditions such as geographic decentralization of operations, use of corporate departments as independent profit centers, growth in employment in the South and West relative to the North and Midwest, and a movement of operations out of the cities and into the suburbs. Prior research has focused on the relationship of establishment size and the provision of health benefits (Malhotra *et al.*, 1980; U.S. Department of Labor, 1986). While limitations in the HIAA data preclude any analysis of establishment size, changes in establishment size are mentioned to illustrate the dynamic environment in which small firms operate.

[5]An establishment is one physical location of a business, whereas a firm encompasses all establishments regardless of location.

Firm Volatility

It is reasonable to expect that new firms and firms that are unstable will less frequently offer health insurance than established firms. Birth and death rates for small firms are significantly higher than for larger firms. For example, the birth rate for single establishment firms with 1 to 4 employees was 0.36 (for every 100 firms, 36 are new) and only 0.12 for firms with 100 to 499 employees. For these same size categories, death rates for the smallest firms was 0.25 but only 0.15 for the larger firms (SBA, 1987). With this degree of risk of going out of business, small employers may be more hesitant to take on fixed cost commitments like health insurance.

Financial Status

Small employers support more workers with fewer (financial) resources. Small firms employ 25 percent of workers in the economy, but their share of total sales, business assets and net reported business income is much less than that (SBA, 1986). They thus are in a poorer position to afford health insurance.

Corporate Structure

Corporate structure tends to differ between small and large firms. Only 63 percent of employees in firms with 1 to 9 employees worked for an incorporated entity in 1979, compared with 84 percent of employees in firms with 20 to 99 employees and more than 99 percent of employees in firms with more than 100 employees (SBA, 1986). In corporations, firm ownership and management are often separate. This distinction may affect the structure of compensation. In owner-managed businesses, health benefits may be more likely to be based on the needs of the owner and not necessarily used to "manage" employees (that is, encourage performance and/or tenure). Moreover, the tax laws allow unincorporated firm owners to deduct only 25 percent of the cost of health insurance for themselves and dependents, thereby discouraging such owners from providing coverage for themselves and probably for employees as well.

Unionization

Unionized industries have commonly offered health insurance; so unionization is a relevant factor in explaining which firms are likely to provide coverage. Unionization of the labor force is more common in larger firms and in some areas of the country. In 1983, when 31 percent of all employees in very large firms (more than 1000 employees) were unionized, fewer than 5 percent of small-firm employees were unionized. Service industries are less unionized than manufacturing, but unionization is affected by size of firm across all industries. A resurgence in union membership does not seem likely with the continued growth in service-producing industries, which tend to be less unionized than manufacturing.

Work Force Composition

Work force composition differs significantly between small and large firms. Small firms tend to hire more teens and retirees than do other firms, as well as more part-time workers, groups that are less likely to need, and, are in a weak position to bargain for, health insurance coverage. For example, in 1983, workers on the job fewer than 2,000 hours in a year (that is, less than full-time), made up 43 percent of total employment in firms with fewer than 25 employees but only 25 percent of employment in larger firms (Andrews, 1989). Additionally, small businesses are more likely to hire workers who have been unemployed or out of the labor force for longer periods (Drury *et al.*, 1988).

Given their work force composition, it is not surprising that small firms tend to provide less formal training on the job, lower average wages, hours, and benefit levels, and to have higher hire and separation rates than larger firms. These consequences make for a mutually beneficial relationship between younger or re-entering workers trying to "prove" themselves and employers who are not able to offer much in the way of training, wages or benefits. Although all parties get what they need in the short run, the very nature of the small employer market is one of great

instability (Drury *et al.*, 1988), which makes it unlikely that employees will be covered for health expenses.

Tenure

Health coverage is less likely to be offered to employees who stay with an employer for only a short period. Job tenure tends to be shorter in small firms, averaging 4.7 years compared with 8.9 years in large firms (Andrews, 1989). Twenty-two percent of employees in firms with 25 to 99 employees had job tenure of less than one year, compared with only 12 percent of employees of firms with more than 1,000 workers. Long-tenure employees—those with more than 10 years on the job—are more than twice as likely to be employed by very large firms (36 percent) than by small firms (16 percent).

Tenure and Industry. Tenure also varies with industry. Average tenure ranges from five years in construction to 12 years in communications. The real story for our purposes is to identify those industries in which high proportions of employees have low job tenure. Table II-2 shows that workers in agriculture, retail trade, services, and construction industries are most likely to have less than one year of tenure. These industries all have high seasonal variation, which may affect both the size of the labor force and the length of time on the job.

Table II-2
Percent of Work Force Having Various Years of Tenure, by Industry, 1989

Industry	Tenure		
	Under 1 Year	1-2 Years	Over 15 Years
		Percent	
Agriculture	19.3	23.1	10.7
Mining	12.8	12.0	10.3
Construction	23.2	23.7	9.1
Manufacturing	13.2	15.1	23.4
Wholesale Trade	17.2	18.8	14.5
Retail Trade	22.9	22.0	9.7
Services	20.4	22.0	10.1
Transportation and Communication	13.3	13.7	27.2
Finance*	15.8	22.4	10.8

*Finance includes Insurance and Real Estate.
Source: Unpublished EBRI tabulations of the May 1988 Current Population Survey Pension Supplement, March 1990.

What explains the relationship between tenure and the provision of health insurance? One explanation may be that an employer may not feel much need to provide health insurance benefits to an employee that is not expected to stay with the firm for very long. Such employees are more likely to be interested in higher cash wages than in non-cash fringe benefits. A second explanation is that short tenures for an established business imply high turnover rates, and high turnover rates increase the administrative cost of providing health insurance. Finally, it may be that employers are motivated to provide health insurance by a desire to keep employees healthy over the long run. Implicit in this assumption is that employees will stay with the firm and that their value to the firm will increase over time. All of these are reasons why employers experiencing high turnover rates (low tenure) would be expected to provide health benefits less frequently.

Occupational Composition

The occupational composition of small and large firms differs. In small firms, workers are more frequently employed in service, construction trades, and managerial occupations. Large firms are

made up of more administrative, technical, and craft workers. The productivity of workers in these occupations (individually and on a per-firm basis) may influence benefit provision. Additionally, differences in management intensity by firm size may also affect decisions regarding the provision of health benefits. As noted above, the smallest firms tend to be more management-intensive and the managers are more often owners. The motivations for providing health benefits may be personal as well as professional for these manager/owners of small firms. In addition to "managing" employees through compensation, small firm managers may be more likely to offer benefits through the firm if they themselves do not have an outside source of coverage (through a spouse, etc.). Conversely, if the manager is also the owner, he may purchase insurance coverage for himself (and his dependents) independently of the firm and thus avoid the additional costs for his employees.

We have noted many differences in the characteristics of small and large firms. We now examine how these characteristics affect decisions about wages and compensation.

Wages and Compensation Among Small and Large Firms

It is reasonable to expect that firms with higher total compensation levels would be more likely to provide health coverage. In the first place, employees in better-paying jobs have more total income, more than enough to cover the most essential items of food, clothing, and shelter, and are thus in a better position to use some of their earnings to purchase health coverage.

In the aggregate, workers in large firms have higher average annual earnings than do workers in small firms—$20,200 in large firms and $11,300 in small firms (Andrews, 1989). However, some occupations or industries may not strictly follow this general pattern. Average earnings decrease as firm size decreases in the manufacturing and service industries, but not in construction and trade. Occupations follow industry patterns, with employees of large firms having higher earnings. Part of the differential in wages of small and large firms can be attributed to differences in work force composition. Employees of large firms tend to be more highly skilled and/or educated and change jobs less often than workers in smaller firms. Taken together, it appears that workers with characteristics associated with low wages (compensation packages) are disproportionately employed by small firms. Even after controlling for factors like education, work experience, years on the job and union membership, large firms still pay higher wages than do small firms (Mellow, 1982).

Effects of Economic Change on Small Firms

General trends in the economy may have had a significant effect on health benefits offered by small employers. Most prominent among the changes which can be expected to have a negative impact on health coverage are the following: increases in the number of self-employed people in unincorporated business and people working in service industries, decreases in employment in unionized firms and in the manufacturing sector and declining labor productivity.

Employment by Firm Size

Small firms appear to be employing a smaller proportion of the work force. In the economy as a whole, employment by firm size was relatively stable from the late 1970s into the early 1980s, with approximately 30 percent of all workers employed by firms with fewer than 25 employees. Since 1983, the proportion of non-farm wage and salary workers reporting that they work for

firms with fewer than 25 employees has dropped 5 percentage points to 25 percent.[6] This shift may represent a trend away from smaller firms, although that trend may be relatively overstated, as large firms regained employment share following the 1982 recession. If the trend continues, it is likely to have a positive effect on the extent of health coverage, since small firms are less likely to offer coverage.

Self-employment

Persons self-employed in unincorporated businesses, a group that often does not have insurance coverage, increased as a percentage of the civilian work force from 1970 through 1984. Overall, however, the percentage of workers who are self-employed (incorporated or not) has remained stable from 1970 through 1988 at nine percent (Piacentini, 1990). Virtually all of these businesses can be classified as "small," having under 100 employees.

Small unincorporated businesses are at a disadvantage in terms of purchasing health insurance because of current tax code provisions. Owners of such businesses can deduct only 25 percent of their own health insurance premiums as a business expense (100 percent of contributions for non-dependent employees), whereas in incorporated businesses, owners may deduct 100 percent of the firm's contributions to employee health benefits (including their own). For many unincorporated self-employed people, this is a significant disadvantage, as their only employees may be family members who would appear as dependents of the owner on a health insurance policy.[7]

Unions

Unions have historically negotiated generous fringe benefit packages, including first-dollar health insurance. The decline in union membership has been strong and steady through the 1980s. In 1988, only 13 percent of private sector workers were union members, down from 17 percent in 1983 (Piacentini, 1990). The contraction in membership is thought to be associated with a shift toward service-producing industries and away from the more heavily unionized manufacturing industries. Another possible explanation is that as working conditions and benefits that unions fought for have been extended throughout much of the economy, the power of unions has declined in management-labor negotiations, and unions have lost some of their attractiveness in the eyes of workers.

Service Sector Employment

Businesses in the service (business, personal, and professional services) sector and service-producing (service plus transportation, utilities, trade, finance, insurance and real estate) sector have traditionally been less likely to offer coverage than some other industries, such as manufacturing. Both service-related groups have increased their proportion of the work force since 1970. Service-producing industry employment is expected to reach 71 percent of the work force by 2000 (Personick, 1987). Even though service industries are generally dominated by small firms, future employment growth in the service sector does not necessarily imply employment growth in the small-firm sector. As the service sector expands, large-firm employment may continue to grow as it did from 1979-1983. The potentially interrelated nature of industry and firm size, and their (individual and combined) effects on the provision of health insurance must be carefully separated.

Productivity

Productivity influences revenues per employee, a measure that can be related to an employer's propensity to offer health insurance. In a more theoretical sense, if compensation packages are

---

[6]Solo unincorporated self-employed are not included in these statistics.

[7]Note: On September 30, 1991, the 25 percent deduction will expire, leaving the unincorporated self-employed unable to deduct any of the expense of their own health benefits.

based on productivity, productive workers are more likely to have more generous benefits, including health insurance. Although productivity has consistently grown in the post-war era, the rate of that growth has been on the decline since 1948 (Kendrick, 1985). Most analysts agree that the slowdown has been worse in the service sector than in manufacturing, and that a shift toward more service-sector employment has added to the problem. Lower productivity in service industries relative to manufacturing is inevitable because service industries are by nature labor-intensive and because there are limited opportunities for applying new technologies in the form of labor-saving capital equipment.

Conclusion

Small firms differ from large firms in a number of important ways, and many of the differences contribute to the lower rate at which small firms offer health coverage. Some of the changes occurring in the economy are likely to pose even more imposing barriers to the expansion of coverage among small employers. The next chapters examine in detail the range of characteristics that distinguish firms that offer health coverage from those that do not.

III. Characteristics of Firms That Do and Do Not Offer Health Insurance

By Cynthia Sullivan, Steven DiCarlo, and Clare Lippert

A large majority of American workers are employed by firms that offer health coverage. In 1989, 77 percent of private and public employees worked for firms that offered health insurance benefits. The proportion of *firms* providing coverage is far smaller—only 43 percent—primarily because of the very large number of small firms that do not offer coverage. This section examines which firm characteristics have the greatest impact on whether or not a firm will provide health insurance benefits and to whom they are provided.

The following set of firm characteristics were found to be significantly related to whether a firm will offer health benefits.

Size of Firm	Age of Firm
Industry	Employee Wage Distribution
Region	Turnover Rate
Metro/Non-metro Status	Full-time Employment
Other U.S. Branches	Health Benefits in 1988

Results of our correlation analysis are presented in Appendix A and show the strength and direction of the relationship of each characteristic to the provision of health benefits. Below, we examine independently the simple relationships among these characteristics and the likelihood of offering health benefits.

Before turning to the discussion of each individual characteristic, it is helpful to consider the relative explanatory power of each. Using standard statistical techniques,[8] we tested to determine how much explanatory power each variable, when considered alone and without holding other variables constant, had in explaining whether firms in the sample did or did not offer health insurance.

As might be expected, the characteristic with the strongest explanatory power was whether the firm offered health insurance in the previous year. When considered by itself, this characteristic explained about 47 percent of the variance in the provision of health coverage. But this finding is less informative than the answer to the more pertinent question of what led the firm to offer health coverage in the first place. Naturally, firms that offer coverage in one year are likely to do so in the following year.[9]

Looking at the other firm characteristics, we find that size is an important feature which distinguishes firms that offer coverage from those that do not. When considered by itself (without controlling for any other firm characteristics), size explains slightly more than 17 percent of the variance in the provision of health coverage.

---

[8]In this instance, log-linear regression was used.

[9]This characteristic is considered in Chapter V, which looks at the characteristics of firms that add or drop health benefits coverage.

The characteristic next in importance was employee wage level, which by itself could explain about 9 percent of the variance in whether or not a firm offers coverage. The presence or absence of other branches explained 6 percent of the variance. No other firm characteristic, when considered by itself, explained as much as 5 percent of the variance.

It needs to be emphasized that these characteristics are not in fact completely independent of one another. Large firms are, for example, likely to have higher wage levels, so when we look at the explanatory power of wage levels we are really seeing the effect of size as well. The purpose for providing data on the individual explanatory power of each firm characteristic is to give the reader some feel for the relative importance of each.

Limitations on resources prevent us from doing the kinds of in-depth analyses that would permit us to determine the ***independent*** causal effect of each of the firm characteristics when all other factors are controlled for. However, in presenting data on a particular characteristic, we often do control for the effect of some of the other variables. For example, when looking at the effect of wage levels on coverage, we control for the effect of size by looking at the wage level effects for firms falling ***within*** various size categories.

Size

The HIAA Employer Survey data reinforce previous findings that firm size is highly correlated with whether or not a firm will provide health insurance benefits. The larger a firm is, the greater the likelihood that the firm will offer health insurance benefits. In fact, employers with over one hundred employees have a 99 percent probability that they will offer health insurance benefits as shown in Figure III-1 and Table III-1. Figure III-1 also emphasizes the fact that while only 39 percent of firms with fewer than 25 employees offer health coverage, a much higher proportion of small firm employees work for firms that offer health benefits (55 percent).

The categories into which small employers are divided have a great deal of impact upon the proportion of employers in each category that offer health benefits. As Table III-1 demonstrates, fewer than three-quarters of employers with under 25 employees provide health insurance benefits. Firms with 10 to 24 employees are more likely to offer health benefits than smaller firms but do not quite resemble large employers in their propensity to offer health insurance. The 1977 Expenditures for Employee Compensation (EEC) survey conducted by the Bureau of Labor Statistics found a sharp distinction in the provision of health benefits between firms with fewer than 10 employees and firms with 10 or more employees.

Even a slight increase in the number of employees in a firm is associated with a significantly higher proportion of employers offering health insurance. We would expect that as firms grow into larger categories of firm size, they will be more likely to provide health insurance benefits to their employees.

Figure III-1
Larger Firms Are More Likely to Offer Health Benefits, 1989

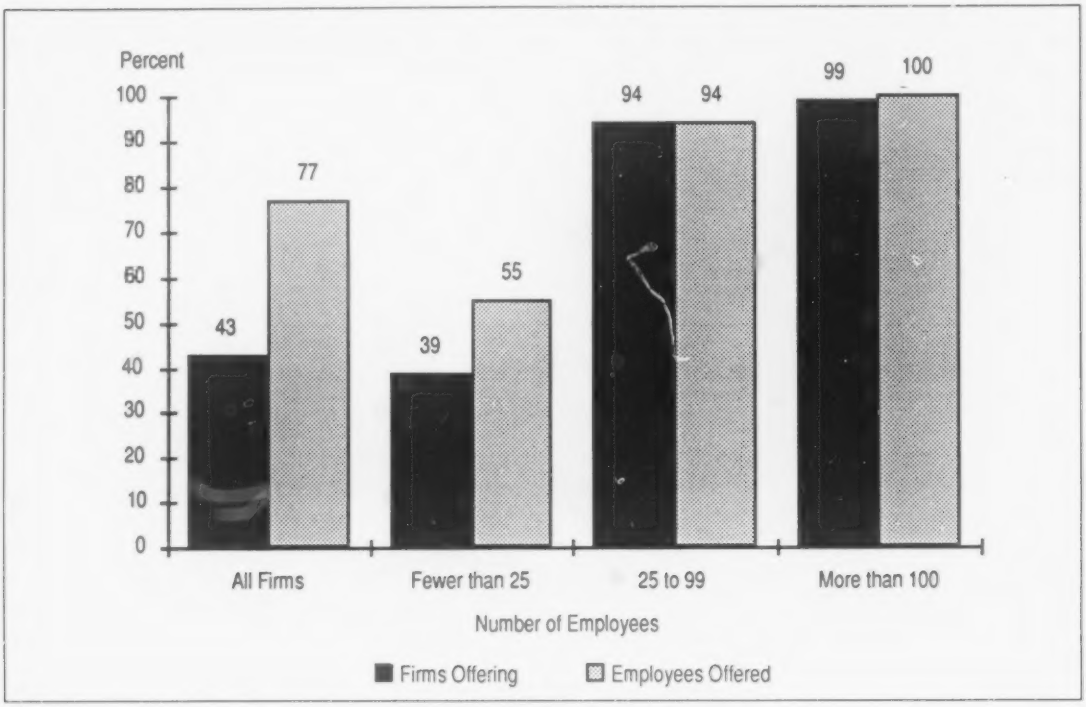


Table III-1
Percent of Firms that Do and Do Not Offer Health Benefits, by Firm Size, 1989

Firm Size	Offer Health Benefits	Do Not Offer Health Benefits
Total	42%	58%
Fewer than 5 Employees	26	74
5-9 Employees	54	46
10-24 Employees	72	28
25-49 Employees	90	10
50-99 Employees	97	3
100 or More Employees	99	1

Industry

Standard Industrial Classification (SIC) is significantly correlated with whether or not a firm provides health coverage as shown in Table III-2. For example, virtually all state and local government agencies offer health insurance. More goods producers offer coverage than service producers (46 percent and 38 percent, respectively). Within these two sectors there are also differences. Among goods-producing industries, manufacturing firms offer health coverage more

often than construction firms. In the service sector many more finance and wholesale firms offer coverage than either transportation or retail firms.

Although only one-third of the transportation and retail trade firms in our sample offer health insurance, over 60 percent of workers in these two industries were employed by firms that offer health insurance. The distinction between firms and employees is an important one in this discussion. Although a minority of firms offer health insurance in some industries and/or regions, the majority of workers are employed by firms that offer health insurance. This point stresses the impact of firm size on the provision of health benefits, in that industries dominated by small firms have lower "coverage" rates.

Table III-2
Percent of Firms Offering Health Benefits, by Industry, by Firm Size, 1989

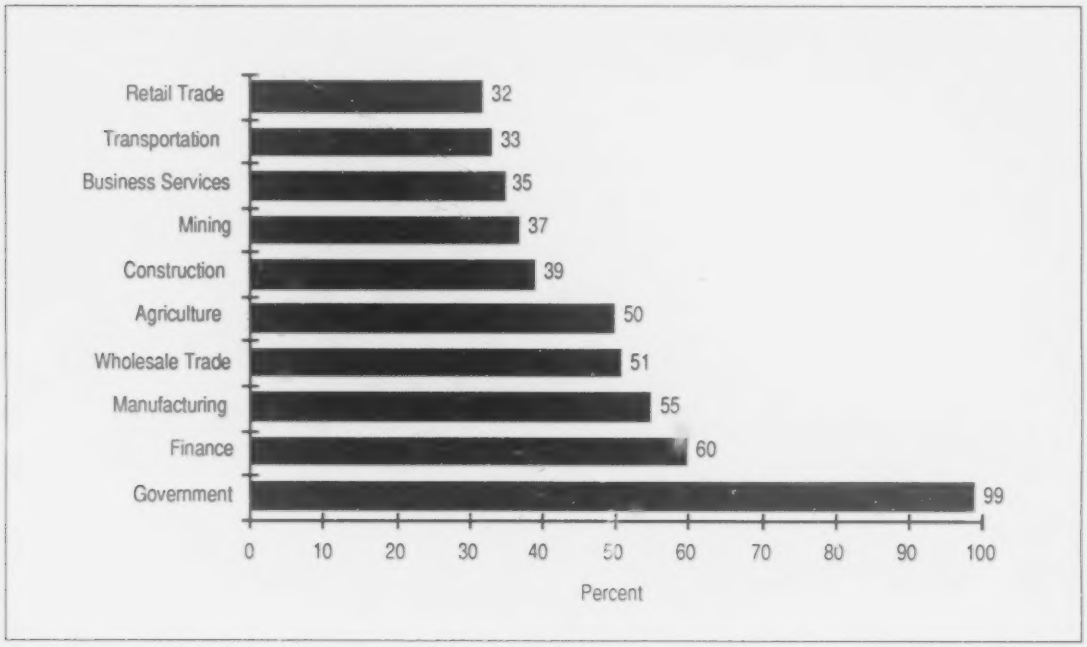
Industry	Percent of Labor Force^	Percent of Responding Firms Offering Coverage					Percent of Employees in Firms Offering Coverage
			Firm Size				
		All Firms	1-9	10-24	25-99	100+	
TOTAL	100	42	39	72	90	99	77
Government***	5	99	100	75	100	100	98
Agriculture	3	50	40	*	*	*	76
Mining	1	37	*	**	*	*	94
Construction	7	39	29	83	*	90	64
Manufacturing	19	55	44	83	97	99	91
Transportation ^^	7	33	25	*	*	100	75
Wholesale Trade	4	51	39	83	*	98	78
Retail Trade	17	32	24	55	78	93	63
Finance^^	7	60	54	*	*	100	90
Business Services	32	35	29	69	90	99	76

*Sample size insufficient to detect significance.
** No responders in this cell.
***Excludes federal government employees.
^ Bureau of Labor Statistics, January 1988.
^^ Finance includes insurance and real estate; transportation includes communications and public utilities.
Note: Totals may not add to 100 due to rounding.

The proportion of the labor force employed by each industry must be taken into account when describing the magnitude of the problem of the working uninsured. Consider industries in which less than 40 percent of all firms offer health coverage as "low-coverage" industries, and industries in which over 50 percent of all firms offer health coverage as "high-coverage" industries. We find that business services and retail trade industries employ large proportions of workers nationwide (BLS, 1987); at the same time, they are low-coverage industries. The manufacturing industry also employs a high proportion of workers, but it can be classified as a high-coverage industry with 55 percent of all manufacturing firms offering health insurance.

The most significant relationship between industry type and firm size appears to be in the difference between firms with under 10 employees vis-à-vis those with 10 to 24 employees. In each industry there is at least a 25 percentage point increase in health coverage as firm size increases to 10 to 24 employees. Among most industries, 99 percent of firms with more than 100 employees offer health coverage. However, only 90 percent and 93 percent of the largest construction and retail firms offer employer-sponsored health coverage, respectively.

Figure III-2
Percent of Firms Offering Health Benefits, by Industry



Region

Although size has the greatest influence on whether an employer will offer health insurance, regional differences are also apparent. The variable region is composed of four categories: Northeast, North Central, South, and West. Forty-nine percent of all Northeastern firms offer health insurance, compared with 39 percent in the North Central region. The proportion of firms offering health coverage in all regions increases with firm size, but region does appear to have an influence on the provision of health benefits distinct from the influence of firm size (see Table III-3).

Table III-3
Percent of Firms Offering Health Benefits, by Region, 1989

Firm Size	Region			
	Northeast	North Central	South	West
Fewer than 10 Employees	39	28	31	33
10-24 Employees	87	74	66	65
25-99 Employees	96	92	92	97
100 or More Employees	100	100	99	99
Total	49	39	41	42

Firms in the Northeast are more likely than firms of any other region to offer health coverage—regardless of firm size. Although very small firms (fewer than 10 employees) in the West appear slightly more likely to provide health coverage than very small firms in the South, firms with more

than 10 employees in the South and West appear to follow similar patterns of health coverage. It is likely that lower coverage rates in the North Central region are due to the greater proportion of small firms in this area.

Metropolitan and Non-metropolitan Location

Firm zip codes were used to identify whether a firm was best described as residing in a metro or non-metro area.[10] Metro/non-metro location was found to be significantly related to whether or not a firm offers health benefits. Metropolitan firms are more likely to offer benefits, holding other variables constant. Although the correlation analysis took into account (controlled for) a number of intervening variables such as industry and firm size, these variables cannot be controlled for in simple cross-tabulations presented. The results of the cross-tabulation of urban status and the provision of health benefits misrepresents the true relationship between the variables. The results of the correlation analysis are more appropriate and can be found in Appendix A.

Firms with Branch Locations

Those firms that have established at least one branch outside the firm's headquarters are more likely to offer health insurance than those firms that conduct business at a single location, as shown in Table III-4. However, the relationship between the existence of branch locations and the provision of health insurance becomes clouded as the number of employees in a firm increases. For the largest firms (one hundred or more employees) the relationship between other U.S. branches and the provision of health benefits is difficult to discern because virtually all of these employers provide health insurance, regardless of whether or not they have other branches. For smaller firms that are less likely to offer health insurance, the existence of other branches is a secondary characteristic that is helpful in determining whether or not a firm is likely to provide health insurance benefits. Small firms that have multiple branches are more likely to provide health insurance than their counterparts without branches.

Table III-4 also demonstrates that the existence of other branches is in itself strongly related to the size of the firm. Smaller firms are less likely to support branches outside their central location or headquarters.

Table III-4
Percent of Firms Offering Health Benefits,
By Existence of Branch Locations, 1989

Firm Size	Percent of Firms with Other Branches	Percent of Firms Offering Health Benefits	
		With Other Branches	Without Other Branches
Fewer than 10 Employees	6	69	36
10-24 Employees	17	79	74
25-99 Employees	34	93	95
100 or More Employees	64	100	100

10 "Metro" and "Non-metro" are defined by the U.S. Office of Management and Budget based on population and urbanization criteria.

Age of Firm[11]

Younger firms are slightly less likely to offer health insurance than are older firms. However, the relationship of age to the provision of health insurance benefits is not linear. The correlation of age to the provision of health benefits is significant (weakly) only when age is categorized as over or under 10 years. Approximately 42 percent of firms under the age of 10 offer health coverage to their employees while 45 percent of firms over 10 years old offer health insurance benefits (see Table III-5). The SBA's 1986 survey found a more dramatic distinction: only 44 percent of firms under 10 years old offered health insurance, while 63 percent of older firms offered health benefits (ICF, 1987).

Firms that are able to stabilize and remain in operation for over 10 years are more likely to begin offering health benefits to their employees than younger firms.

Table III-5
Percent of Firms Offering Health Benefits, by Age of Firm, 1989

Firm Age	Offer Health Benefits	Do Not Offer Health Benefits
10 or Fewer Years	42%	58%
More than 10 Years	45%	55%

Wage Levels

Low-wage workers

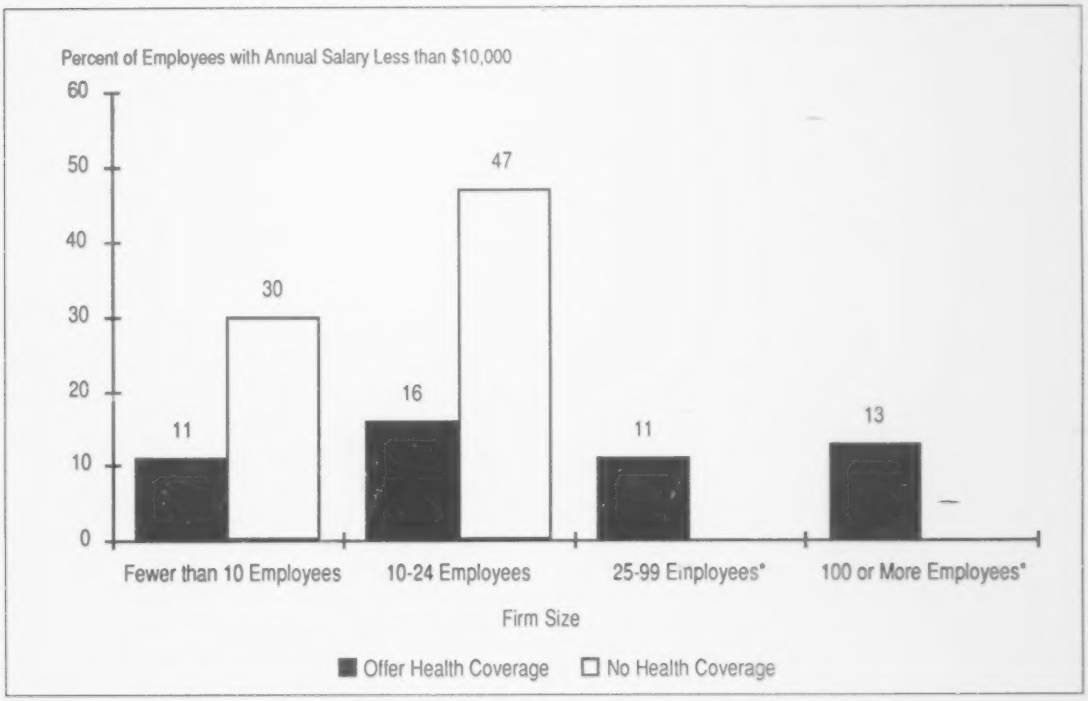
Compensation is the sum of cash wages and non-cash benefits, such as health insurance. Total compensation is what an employer is willing to pay an employee to produce goods and services. To keep total compensation as a proportion of profits constant, benefits can only be added if wages decrease, or if profits increase. If a firm has a large proportion of low-wage workers, it seems unlikely that it will decrease wages in order to offer health (or other) benefits. The minimum wage, of course, sets a floor as to how much wages could be reduced in order to offer benefits.

Respondents were asked what proportion of their workers earned less than $10,000, between $10,000-$30,000, and more than $30,000 annually. The proportion of employees who fall within each of these categories appears to affect whether or not an employer offers health insurance.

Figure III-3 and Table III-6 show that for every firm size category, the greater the proportion of employees who earn more than $10,000 per year, the greater the likelihood that a firm will offer health insurance. Likewise, firms with greater proportions of employees earning over $30,000 per year are more likely to offer health insurance. Interestingly, firms with large proportions of employees who earn between $10,000 and $30,000 per year are also more likely to offer health insurance than not.

[11]Although it would be preferable to be able to examine very young firms (e.g., firms less than two years old) such young firms have often not entered the credit market or otherwise made it known that they exist and thus cannot become a part of anyone's sample frame.

Figure III-3
Firms that Do Not Offer Coverage Have More Workers Earning Less than $10,000



*Sample size insufficient to detect significance among firms not offering coverage.

Table III-6
Employee Wage Distributions Among Firms that Do and Do Not Offer Health Benefits, by Firm Size, 1989

	All Firms			Offer Health Benefits			Do Not Offer Health Benefits		
	Percent of Employees Earning:			Percent of Employees Earning:			Percent of Employees Earning:		
Firm Size	Less than $10,000	$10,000-$30,000	More than $30,000	Less than $10,000	$10,000-$30,000	More than $30,000	Less than $10,000	$10,000-$30,000	More than $30,000
All Firms	23	56	21	12	62	26	31	52	17
Fewer than 10 Employees	24	55	21	11	60	28	30	53	18
10-24 Employees	24	56	19	16	62	22	47	41	12
25-99 Employees	13	67	19	11	69	20	*	*	*
100 or More Employees	14	65	22	13	65	22	*	*	*

*Sample size insufficient to detect significance.

The distribution of employees at the lower end of the wage scale appears to heavily influence the employer's decision to offer health benefits. Table III-6 presents data weighted to represent the average proportion of employees per firm that earn less than $10,000 annually. When the data are weighted to represent the proportion of employees in this earnings category (not on a per firm basis), we find 38 percent of employees working for firms that do not offer health insurance earn less than $10,000 per annum (as opposed to the firm-based figure of 31 percent shown in Table III-6). In her analysis of the 1988 Current Population Survey data, Chollet found that 63

percent of the employed uninsured earn less than $10,000 annually.[12] Thus, the trends and relationships in the Employer Survey wage data parallel those found elsewhere, but the absolute magnitude of the numbers may be off.

It is reasonable to assume that firms that employ low-wage workers employ a disproportionate number of part-time, unskilled, and seasonal workers. Employees in such firms are likely to receive fewer non-wage benefits than other workers: when wages are low there is less room to make trade-offs between money wages and other benefits. Moreover, lower wage workers have fewer job alternatives and thus may be less likely to "rock the boat" by expressing an interest in health or other benefits.

In sum, all categories of employee wages are correlated with the provision of health insurance benefits. Firms with a greater proportion of employees earning $10,000-$30,000 or over $30,000 per year are more likely to offer health insurance, while firms with greater proportions of employees earning under $10,000 annually are less likely to do so. Of these three wage categories, the proportion of employees earning under $10,000 has the most significant impact on the provision of health benefits. The larger the number of low-wage workers, the less likely the firm will offer health insurance benefits.

Given that firms with a greater proportion of low-wage employees are less likely to offer health insurance, it appears that if firms that do not offer health coverage were to provide this benefit, the total employer contribution to health care costs would represent a greater proportion of payroll than among firms that currently offer health coverage. Firms currently not offering health insurance have relatively lower payrolls due to their higher proportion of workers earning less than $10,000 annually. This measure (health benefits as a proportion of payroll) is one way of illustrating the disproportionate (financial) impact of various mandatory fringe benefit proposals on small employers.

Wages and Industry

Industries that tend to employ a greater proportion of low-wage earners appear to be less likely to offer health coverage. The proportion of employees earning less than $10,000 annually is generally greater in the service sector than either the goods-producing or government sectors; and service sector firms are least likely to offer health insurance. Differences also exist across industries. The retail industry has the highest proportion of low-income wage earners (34 percent earn under $10,000 annually) and the lowest percentage of firms offering coverage (32 percent). In contrast, only 12 percent of employees in government and finance earn under $10,000 annually, and firms in these industries are most likely to offer health coverage (99 percent and 60 percent, respectively).

[12]We believe some of the discrepancy may also have to do with how the question was asked. In the HIAA employer survey employers may have annualized hourly wages to come up with a proportion of employees earning less than $10,000 annually. This may overestimate annual earnings for part-time or part-year employees and thus, underestimate the proportion of employees in this wage category. Additionally, there are probably some low-wage workers who are uninsured, but who work for firms that offer health benefits. These workers are not counted in our tabulations, further contributing to the under-count.

Table III-7
Percent of Employees Earning Less than $10,000 Annually at Firms that Do and Do Not Offer Health Benefits, by Industry, 1989

	Percent of Employees Earning Under $10,000 Annually		
	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
Total	23	13	31
Goods producing	18	10	25
Agriculture	23	*	*
Mining	16	*	*
Construction	18	8	25
Manufacturing	16	11	22
Service producing	26	14	33
Transportation	19	6	25
Wholesale Trade	24	9	39
Retail Trade	34	23	39
Finance	12	7	21
Services	24	13	30
Government	12	12	*

*Sample size insufficient to detect significance.

Labor Fluctuation[13]

Turnover

Analysts have long been interested in how labor fluctuation rates influence compensation packages. The data from the HIAA Employer Survey helped to shed some light on this issue. The survey asked small employers how many employees joined the firm and how many left in the past year. From this information we were able to calculate three statistics: the turnover rate, the firm size change rate, and labor fluctuation rate.

- We define *turnover rate* for the year as the *lesser of* the number of employees joining or leaving the firm during the year divided by the number of employees at the beginning of the year. Conceptually, the turnover rate measures the number of a firm's employees that are replaced in a stable core number of employees over the course of a year.
- The *firm size change rate* is the difference between the number of employees at the beginning and end of the year (i.e., growth or reduction in firm size) divided by the beginning number of employees.
- The *labor fluctuation rate* is the *greater of* the number of employees joining or leaving divided by the beginning number of employees.

Of these three measures, only turnover was significantly correlated with a firm's decision to offer health insurance. Thus, we will concentrate our presentation on this measure. One further caution is necessary: this definition of turnover does not allow us to distinguish between situations of very frequent turnover in relatively few jobs and situations of moderate turnover in many positions.

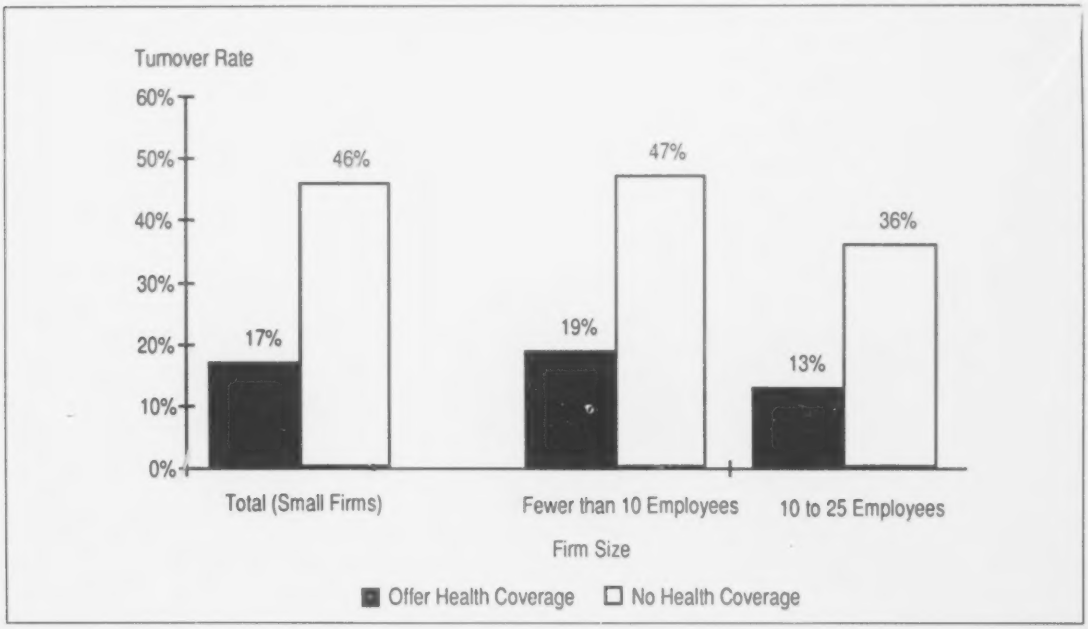
[13]Labor fluctuation measures were collected and calculated for firms with fewer than 25 employees only.

We expected turnover rates to be negatively correlated with the provision of health benefits. Employers will be understandably reluctant to pay health premiums or the administrative costs associated with enrolling new employees if the employees are expected to leave the firm within a few months. Moreover, employers seeking to hire such employees probably find higher money wages a more effective enticement than the promise of health coverage combined with lower wages.[14]

For small employers, there appears to be a strong, direct relationship between the provision of health insurance and turnover rates as seen in Figure III-4. Small firms that offer health insurance experience turnover rates averaging less than 20 percent, whereas firms that do not offer health insurance have turnover rates two and one-half times as high.

Table III-8 shows the different relationships among our measures of labor volatility. First, the turnover rate for all small firms is 31 percent, while the total labor fluctuation rate is 56 percent. In comparing firms that offer coverage with those that do not, both turnover and labor fluctuation rates are much higher for firms that do not offer coverage. However, firm size change does not show the expected pattern: fluctuations in firm size are slightly greater for the smallest firms that offer health insurance. Although this measure was not significantly related to a firm's decision to offer health benefits, we explored the possibility that this aggregate measure of firm size change (which treats growing and declining firms in the same way) may have masked differences between growing and declining firms (this analysis is not shown). Overall, growing firms had much lower rates of turnover and firm size change than declining firms. However, when growing and declining firms were further classified by whether or not they offered health benefits, turnover rates and firm size change rates were quite similar. Further work in this area (and possibly new measures) may be warranted.

Figure III-4
Small Firms that Offer Coverage Have Lower Rates of Turnover



[14]NFIB survey results also indicated that firms with high turnover (self-characterized) were least likely to sponsor a health insurance plan (Hall and Kudor, 1990).

Table III-8
Labor Volatility Among Small Firms, by Firm Size, 1989

	Labor Fluctuation Rate in Percent			Turnover Rate in Percent			Firm Size Change in Percent		
Firm Size	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
Total	56	44	69	31	17	46	25	27	23
Fewer than 10 Employees	62	52	70	34	19	47	28	33	23
10 to 25 Employees	31	23	57	19	13	36	12	10	21

Other presentations of the relationship between labor fluctuation and coverage status in small firms are shown in Tables III-9A and III-9B. Table III-9A presents the proportion of employees and firms that fall into various ranges of turnover given their coverage status. The most striking finding is that 12 percent of employees in small firms that do not offer health insurance work in environments with turnover rates of over 70 percent, whereas only 4 percent of employees in small firms that do offer health benefits work in such highly fluctuating environments. Further, as shown in Table III-9B, 62 percent of employees in firms with over 70 percent turnover are not offered health coverage, compared with only 32 percent of employees in firms with less than 30 percent turnover. This underscores the influence of turnover as a predictive variable to distinguish between firms that do and do not offer health insurance.

Table III-9A
Percent of Employees and Firms Experiencing Various Levels of Turnover, Firms with Fewer than 25 Employees, 1989

	Percent of Employees			Percent of Employers		
Turnover	All Firms	Offered Health Benefits	Not Offered Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
0-29%	83	87	74	82	86	79
30-49%	7	7	8	6	7	6
50-69%	3	1	6	3	2	5
70-100%	7	4	12	8	5	10
Total	100	100	100	100	100	100

Note: Total may not add to 100 due to rounding.

Table III-9B
Percent of Employees and Firms Experiencing Various Levels of Turnover, Firms with Fewer than 25 Employees, 1989

	Percent of Employees			Percent of Employers		
Turnover	Total	Offered Health Benefits	Not Offered Health Benefits	Total	Offer Health Benefits	Do Not Offer Health Benefits
0-29%	100	68	32	100	52	48
30-49%	100	61	39	100	53	47
50-69%	100	29	71	100	27	73
70-100%	100	38	62	100	34	66

Wages and Turnover

Previous research has shown that in both large and small firms, higher turnover is associated with lower wages (Drury *et al.*, 1988). Thus, it is not surprising that we find relatively higher turnover rates among firms with greater numbers of employees who earn under $10,000 per year. We stratified firms with under 25 employees by the proportion of employees reported to earn under $10,000 and then considered the average turnover and labor fluctuation rates for all firms, as well as for firms that offer and do not offer health insurance benefits (see Table III-10).

Table III-10
Labor Fluctuation Rates Among Small Firms with Various Proportions of Low-wage Workers, 1989

	Labor Fluctuation Rate in Percent			Turnover Rate in Percent		
Percent of Employees Earning Under $10,000	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
0-29%	44	43	46	21	15	31
30-59%	62	31	80	35	22	43
60-100%	103	73	111	69	34	79

Turnover increases as the proportion of employees earning under $10,000 annually increases. Further, regardless of the proportion of employees earning under $10,000, firms that do not offer health coverage have turnover rates approximately double those of firms that do offer health benefits. The combination of high proportions of low-wage workers and high turnover will certainly decrease the likelihood that a firm will offer health benefits.

Industry and Turnover

While we find that some industries are less likely to provide health coverage than others, we also find that a lack of health benefits is in part a function of the high turnover rates experienced by some industries. Firms in industries that are less likely to offer health benefits usually report higher average employee turnover rates: construction (54 percent), retail trade (50 percent), and services (25 percent) (Table III-11).

Table III-11
Labor Fluctuation Rates Among Firms that Do and Do Not Offer Health Benefits, by Industry, 1989

Industry	Labor Fluctuation in Percent			Turnover Rate in Percent		
	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
Total	56	44	69	31	17	46
Goods producing	70	63	78	35	15	58
Agriculture	*	*	*	*	*	*
Mining	*	*	*	*	*	*
Construction	71	31	104	54	16	85
Manufacturing	78	98	50	18	14	24
Service producing	51	35	65	30	17	41
Transportation	36	39	34	13	20	8
Wholesale Trade	25	24	28	10	12	9
Retail Trade	75	32	105	50	17	74
Finance, Insurance	39	23	94	17	8	44
Services	44	49	41	25	25	25
Government	*	*	*	*	*	*

*Sample size insufficient to detect significance.

However, when we compare the labor fluctuation rates for firms in low-coverage industries (i.e., less than 40 percent of firms offer coverage) we find that in some cases a lack of health coverage may be more closely related to the level of turnover prevalent in the industry rather than other industry-specific characteristics. For example, the average turnover rate for retail trade firms that offer health coverage is 17 percent. This turnover rate is similar to turnover among firms that offer health benefits in high-coverage industries, such as manufacturing. On the other hand, turnover among retail trade firms that do not offer health coverage is 74 percent. Thus, for retail trade, the high levels of turnover characteristic of this industry may be a key to explaining this industry's low coverage rate.

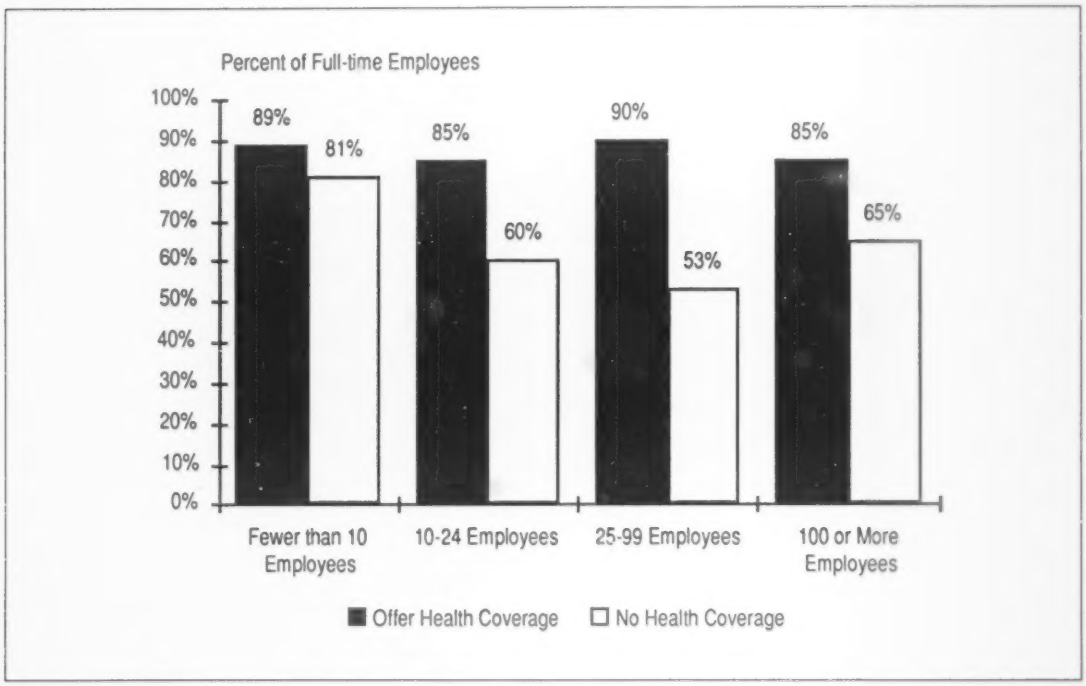
For firms that offer coverage, the construction and service industries have high levels of turnover (16 percent and 25 percent, respectively). When we consider firms in these industries that do not offer health coverage, we find that the average turnover rates among construction and service firms are 85 percent and 25 percent, respectively. Thus, it appears labor fluctuation is importantly related to whether or not construction firms offer health coverage, but is less correlated with the provision of health benefits in the service industry. There are additional characteristics of firms in the service industry that encourage firms not to provide health coverage. For example, in seasonal businesses, labor fluctuation may be a relatively more important reason for not offering health benefits.

Full-time Employment

Research on health benefits coverage has traditionally focused on full-time employees because full-time employment is often a prerequisite for plan eligibility. Previous research (Gabel *et al.*, 1989; U.S. Small Business Administration, 1987) has found that the two major classes of workers who are excluded from health coverage are part-time and temporary (or seasonal) workers. Our data indicate that the proportion of full-time employees (employer defined full time) is also linked to whether or not a firm provides health insurance coverage at all. As shown in Figure III-5 and

Table III-12, firms with a higher proportion of full-time employees are more likely to offer health insurance, even when we controlled for firm size.

Figure III-5
Firms that Offer Coverage Have More Full-time Employees



The combination of several factors makes the role of full-time employees important in the decision to provide health benefits. First, full-time workers tend to have longer tenures, higher per hour compensation and are more likely to be primary workers than part-time employees. For these reasons among others, most employers exclude part-time and temporary or seasonal workers for eligibility in their health plans. Additionally, because insurance attempts to spread risk, the larger the group, the lower the risk per person. Thus, larger groups (groups with more full-time workers) may find it easier to find coverage than smaller groups (or groups with a lower proportion of full-time workers).

Table III-12
Percent of Full-time Employees for Firms that Do and Do Not Offer Health Coverage, by Firm Size, 1989

	Percent Full-time Employees		
Firm Size	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
Fewer than 10 Employees	81	89	78
10-24 Employees	78	85	60
25-99 Employees	87	90	*
100 or More Employees	85	86	*

*Sample size insufficient to detect significance.

Although the correlation between the proportion of full-time employees and the provision of health benefits is significant, it is important to note that this correlation is weaker than some of the other characteristics discussed above. The weakness is due in part to the fact that while a majority of firms do exclude part-time workers (68 percent) and seasonal or temporary workers (50 percent) from health coverage, some firms do not (ICF, 1987). Other reasons for excluding employees from health coverage are cited by less than 9 percent of all employers and are not considered in our analysis.

Employees Who Work for Firms that Offer Health Benefits

The proportion of *employees* who work for firms that offer coverage is significantly greater than the proportion of *firms* that offer coverage. However, it is unusual for all employees of firms that offer coverage to actually be covered by their own firm's plan. Here we examine how likely it is that an employee works for a firm that offers health benefits and then how eligibility requirements affect coverage rates (keeping in mind that some eligible employees decline coverage).

Firm size. The proportion of employees working for firms that offer health coverage varies by size of firm. Among small firms, 55 percent of employees work for firms that offer health coverage compared with 99 percent of large-firm employees (Table III-13).

Region. Regional variations are also evident (Table III-13). A greater proportion of Northeastern employees work for firms that offer health coverage (84 percent) than in other regions. This is largely the result of the higher proportion of small Northeastern firms that offer health coverage. In small Northeastern firms, 67 percent of employees are offered health coverage compared with just over half of the employees in small firms in other regions.

Table III-13
Percent of Employees Working for Firms that Offer Health Benefits, by Region, by Firm Size, 1989

		Firm Size	
Region	All Firms	Fewer than 25 Employees	25 or More Employees
Total	77	55	99
Northeast	84	67	99
North Central	77	51	98
South	75	52	98
West	74	51	99

Industry. In the goods-producing sector, only 46 percent of employers offer a health plan, while 83 percent of employees work for firms that offer coverage. Similarly, in the service-producing sector 38 percent of employers offer coverage and 74 percent of employees work for firms offering coverage. Comparable results are found across all industries (Table III-14). This difference is most dramatic in the service-producing sector where 98 percent of large-firm employees are offered coverage but only 51 percent of small-firm employees are offered this benefit.

Table III-14
Percent of Employees Working for Firms that Offer Health Benefits, by Industry, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 25 Employees	25 or More Employees
Total	77	55	99
Goods producing	83	64	99
Agriculture	*	*	*
Mining	*	*	*
Construction	64	59	95
Manufacturing	91	68	100
Service producing	74	51	98
Transportation	75	*	100
Wholesale	78	69	100
Retail	64	42	96
Finance	90	75	100
Services	78	47	99
Government	98	*	100

*Sample size insufficient to detect significance.

Who Is Eligible for Coverage

The percentage of employees eligible to receive benefits may differ somewhat from the percentage of employees that work for firms that offer coverage. While firms may offer health insurance, they often require employees to meet minimum requirements before becoming eligible to receive health benefits. The percentage of eligible employees therefore tends to be less than the total work force.

One common eligibility requirement is that employees work 30 hours each week, making part-time employees ineligible for coverage. The survey data we report here excluded all information about coverage for part-time employees, so we can report only on coverage among full-time employees.[15] Overall, 77 percent of all employees (full- and part-time) work for firms that offer coverage, but only 83 percent of full-time employees working for firms that offer benefits are eligible.

Some full-time employees are not eligible for health benefits because waiting periods are imposed by employers. Full-time employees may be required to work for three or six months before becoming eligible for health and other benefits.

Firm Size and Region. There are only slight differences in the proportion of full-time employees who are eligible for health benefits by firm size and region, as shown in Table III-15. The interesting finding shown is the trend for smaller firms to have larger proportions of their full-time workers eligible for health benefits.

Industry. The percentage of full-time employees eligible for coverage varies by industry (see Table III-16). Full-time employees in retail firms are least likely to be eligible to receive benefits whereas more than 90 percent of employees in government and finance firms are eligible.

[15] Respondents defined "full-time"; we did not.

Table III-15
Percent of Full-time Employees Eligible for Coverage Among Employers Offering a Health Plan, by Region, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 25 Employees	25 or More Employees
All firms	83	84	82
Northeast	84	87	82
North Central	79	81	79
South	86	87	85
West	83	81	84

Table III-16
Percent of Full-time Employees Eligible for Coverage Among Employers Offering a Health Plan, by Industry, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 25 Employees	25 or More Employees
Total	83	84	82
Goods producing	86	85	87
Agriculture	*	*	*
Mining	*	*	*
Construction	79	80	77
Manufacturing	85	84	86
Service producing	86	88	86
Transportation	88	*	85
Wholesale	88	90	84
Retail	70	79	65
Finance	96	95	96
Services	84	85	83
Government	92	*	92

*Sample size insufficient to detect significance.

Who Is Covered

Some full-time eligible employees decline coverage for various reasons. Perhaps their employer requires a large contribution toward the premiums from the employees, which may be unaffordable to some. Or perhaps the employee has coverage from another source.

Firm Size and Region. Table III-17 shows that the proportion of full-time eligible employees covered by an employer-sponsored health plan varies by 5 to 8 percentage points around the national average of 73 percent when examined on a regional basis.

Table III-17
Percent of Full-time, Eligible Employees Covered by Employer-sponsored Plan, by Region, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 25 Employees	25 or More Employees
Total	73	75	72
Northeast	72	81	66
North Central	68	68	68
South	76	75	76
West	78	74	81

Industry. As expected, the proportion of full-time eligible workers covered by employer sponsored plans is lowest among retail firms and highest among government and transportation firms. The low percentage of coverage among retail workers suggests that these employees may be secondary workers who are covered elsewhere (see Table III-18).

Table III-18
Percent of Full-time Eligible Employees Covered by Employer-sponsored Plan, by Industry, by Firm Size, 1989

		Firm Size	
Industry	All Firms	Fewer than 25 Employees	25 or More Employees
Total	73	75	72
Goods-Producing	82	81	82
Agriculture	*	*	*
Mining	*	*	*
Construction	75	73	81
Manufacturing	82	77	83
Service-Producing	75	78	74
Transportation	86	89	85
Wholesale	83	80	87
Retail	53	63	46
Finance	76	91	68
Services	72	74	72
Government	89	*	82

*Sample size insufficient to detect significance.

Conclusion

Firm size appears to be the most important factor for distinguishing firms that offer health coverage from those that do not. But other factors appear to have independent effects as well, particularly high levels of labor fluctuation and the proportion of low-wage workers.

Having examined the differences between firms that do and do not offer health insurance, we turn next to the reasons that employers give for not offering coverage.

IV. Why Employers Do Not Offer Coverage

By Cynthia Sullivan

Each year the survey asks employers who do not offer health coverage why they have elected not to provide this employee benefit. They are asked to rate the importance of the following possible explanations:

1) insurance premiums are too expensive;
2) firm's profits won't cover the cost of health insurance;
3) firm has been unable to find an acceptable health plan;
4) firm's employees are not interested in health insurance;
5) employee turnover is too high to warrant offering health insurance;
6) health insurance coverage is not necessary to attract employees; and
7) concern over future health costs.

Employers report their concerns as very important, somewhat important, not too important, or not at all important.

Caution in interpreting the data is necessary. The reasons employers cite may be proxies for other reasons. For example, "low profitability" may be an excuse for not providing benefits for low-wage, high turnover workers.

Among these seven reasons for not offering health insurance, expense, low profits and concerns about future health care costs are considered very important reasons by the largest number of firms. The inability to find an acceptable health plan is very or somewhat important to slightly less than half of the employers who do not offer health insurance. Reasons of lesser importance, according to employers, include a lack of employee interest, health coverage being unnecessary to attract employees, and high turnover, in descending order (see Table IV-1 and Figure IV-1).

In a number of ways, the responses employers give to indicate why they do not offer health coverage are consistent with our findings about characteristics of firms that do not offer health insurance. A majority of employers assign premium expense, low profits, and concern over future health care costs the highest degree of importance in their decision to not offer health benefits. At the same time, our brief mention of health care costs as a proportion of payroll suggests that firms with relatively more low-wage workers will face relatively higher health care costs as a proportion of payroll and thus may not offer coverage.

Figure IV-1
Percent of Firms Citing Particular Reasons as a Very Important Reason for Not Offering Health Insurance

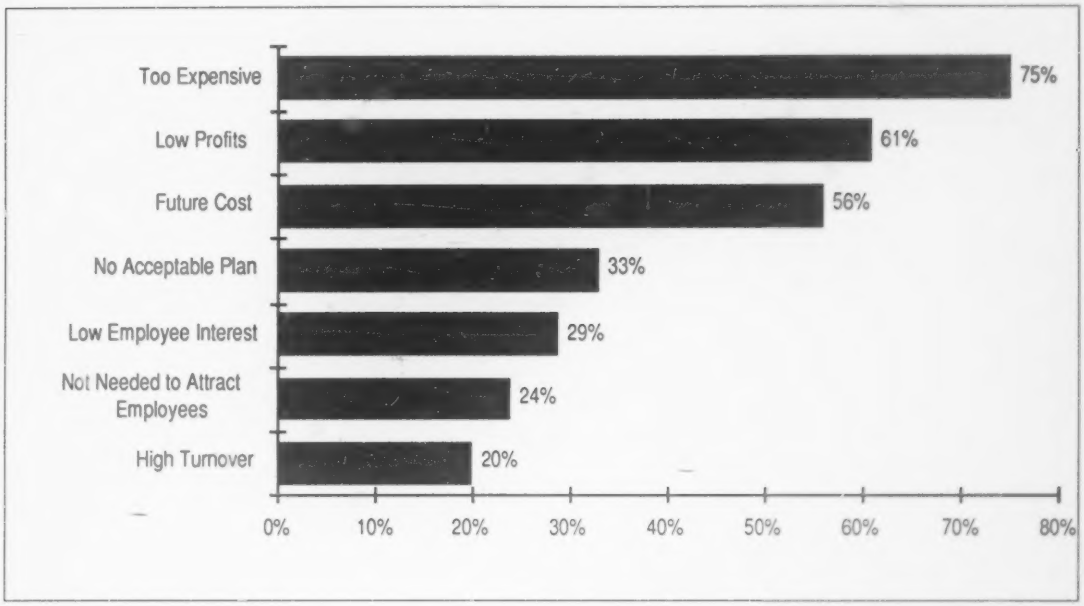


Table IV-1
Percent of Firms Citing Particular Reasons For Not Offering Health Insurance

Reason	Very Important	Somewhat Important	Not Too Important	Not at All Important
Expense	75%	11%	4%	11%
Profits	61%	15%	6%	18%
Future Cost	56%	14%	7%	23%
No Acceptable Plan	33%	13%	13%	41%
Low Employee Interest	29%	23%	14%	34%
Not Needed to Attract Employees	24%	18%	14%	45%
High Turnover	20%	12%	13%	55%

Perhaps more interesting are the seeming inconsistencies between the characteristics of employers who do not provide health insurance and the reasons they provide for their lack of coverage. Our analysis demonstrates that higher levels of labor fluctuation are associated with firms that do not offer health insurance. The difference in labor fluctuation rates between firms that do and do not offer employer-supported health coverage is dramatic: the labor fluctuation rate in firms that do not offer health insurance is twice the level of labor fluctuation for firms of the same size who do offer health coverage. However, overall, relatively few employers cited high turnover as a reason for not offering health insurance. To test these seemingly contradictory findings, we categorized firms by their reported level of labor fluctuation and then tabulated how important turnover was to their decision not to provide health insurance. Firms having significant labor fluctuation did cite turnover as an important reason for not offering health benefits (see Table IV-10).

To provide more insight into the reasons employers give for not offering health insurance, it is useful to give information on responses by size of employer. Because most large firms do provide health coverage, we present responses of firms in two size categories—fewer than 10 employees, and 10 to 25 employees.

Expense

The impact of the cost of providing health insurance benefits upon the decision to provide health benefits has been the focus of a great deal of research. Insufficient profits and insurance costs are often cited as the main reasons employers do not offer health insurance (ICF, 1987; Korczyk, 1988a; Hall and Kudor, 1990). As expected, based on the results of previous research, the expense of providing health coverage is the primary reason firms offer for their decision not to provide it. Fully 76 percent of the very smallest employers who do not offer health coverage say the expense of this benefit is very important to their decision not to provide it. Table IV-2 shows an additional 10 percent of these very small firms say the expense of this benefit is a somewhat important reason for not offering health coverage. The responses of the larger small firms are very similar.

Table IV-2
Importance of "Expense" as a Reason for
Not Offering Health Insurance

	Number	Percent				
Firm Size	Responding	Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	310	100	76	10	3	11
10-25 Employees	37	100	71	14	5	10

Low Profits

Table IV-3 shows that the proportion of *very small* employers saying that low profits are a very important reason for not offering health insurance mirrors the proportion of *all* employers that cite this reason as very important (as shown in Table IV-1). However, firms with 10 to 25 employees place greater importance on low profitability. This suggests that more of these somewhat larger firms might consider offering coverage if their profits would permit, whereas fewer of the very smallest firms would do so even if their profits were adequate to support such an expense. Low profits were also the second most commonly cited reason for not offering health benefits in the 1988 National Federation of Independent Businesses survey. This survey found that 39 percent of firms not offering health insurance indicated that their profits were too unstable from year to year to commit to such a fixed cost as health insurance.

Table IV-3
Importance of "Low Profits" as a Reason for
Not Offering Health Insurance

	Number	Percent				
Firm Size	Responding	Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	302	100	59	16	6	19
10-25 Employees	34	100	76	5	8	11

Earlier we examined wage structure as a partial proxy for profitability. Table IV-4 shows that firms with a higher proportion of low-wage workers are more likely to cite low profits as a very important reason for not offering health insurance.

Table IV-4
Percent of Firms Citing "Low Profits" as a Very Important Reason for Not Offering Health Insurance, By Proportion of Low-wage Workers

Percent of Employees Earning Under $10,000	Percent Of Firms
0%-29%	55%
30%-59%	56%
60%-100%	73%

Future Health Costs

The smallest of firms are the most concerned over future health costs (see Table IV-5). The volatility of the very small employer market may account for some of these concerns. The smallest firms are most likely to be affected by large variations in annual profitability, and they often have low or nonexistent fiscal safety nets with which they could finance health coverage during periods of low profitability. Small firms have a failure rate that is much higher than that of larger firms (SBA, 1987).

Table IV-5
Importance of "Future Costs" as a Reason for Not Offering Health Insurance

Firm Size	Number Responding	Percent Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	304	99	56	14	6	23
10-25 Employees	35	100	52	11	14	23

Note: Totals may not add to 100 due to rounding.

No Acceptable Plan

The proportion of firms that cite "no acceptable plan" as a very important reason for not offering health insurance is slightly higher among the smallest employers (see Table IV-6). Unfortunately, we do not know exactly why employers labeled a plan "unacceptable." The most probable reason would be cost of the plan or perhaps limited coverage. It has long been hypothesized that in order to make policies affordable, small employers offer plans that are less comprehensive than those offered by larger firms. But in Chapter VI we will see that small firm plans tend to be more likely than larger firms' plans to include preventive benefits.

Table IV-6
Importance of "No Acceptable Plan" as a Reason for Not Offering Health Insurance

Firm Size	Number Responding	Percent Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	284	100	34	12	13	41
10-25 Employees	35	100	28	25	10	37

Low Employee Interest

Table IV-7 shows that the smallest employers are most likely to cite a lack of employee interest as a very important reason for not providing health insurance. An equal proportion of firms with 10 to 25 employees say lack of employee interest is important, but more of these firms say lack of interest is somewhat, rather than very, important. Employees of very small firms may express less interest in health coverage because they do not expect small firms to provide this type of health benefit. Also, employees may not place much importance on the receipt of health benefits if they do not expect to stay on the job very long or if they entered the labor force in pursuit of wages rather than compensation packages. Finally, given the work force characteristics of the smallest firms' employees, these employees may already have coverage from other sources such as a spouse, parents, or the government.

Table IV-7
Importance of "Low Employee Interest" as a Reason for Not Offering Health Insurance

	Number	Percent				
Firm Size	Responding	Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	291	100	31	22	13	34
10-25 Employees	35	100	16	29	19	36

The most current survey of the National Federation of Independent Businesses also asked about employee interest in health benefits. Their analysis concluded that current employees do not appear to be pressuring small business employers for changes in health insurance benefits. A similar conclusion was also reached about the importance of health benefits in attracting employees (Hall and Kudor, 1990).

Not Needed to Attract Employees

It is reasonable to assume that some employers decide not to offer health coverage because they think it is unnecessary to do so to attract employees. One would expect this response from employers that hire young, healthy employees (who may see themselves as being at low risk) and employees who are covered as a result of their relationship with a family member who has family coverage. Smaller employers tend to hire a disproportionate number of such workers.

Responses to the reason "not needed to attract employees" do not fully confirm the above hypotheses. Firms with fewer than 10 employees are most likely to cite "not needed to attract employees" as a very important reason for not offering coverage. But when the responses for "important" and "very important" are added, it is the larger small firms that cite "not needed to attract employees" as a reason for not offering coverage; 60 percent responded in this way, compared with 40 percent for the smallest firms. About all that can be said with confidence is that firms with 25 or fewer employees seem to believe that offering health insurance is not critical to attracting the kinds of workers they employ.

Table IV-8
Importance of "Not Needed to Attract Employees" As a Reason for Not Offering Health Insurance

	Number	Percent				
Firm Size	Responding	Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	296	101	25	15	14	47
10-25 Employees	35	100	19	41	16	24

Note: Totals may not add to 100 due to rounding.

Turnover

Although an average of 21 percent of small employers cite high turnover as a very important reason for not offering health insurance (Table IV-1), this statistic increases with size as shown in Table IV-9. For the smallest firms, 18 percent indicate turnover is very important, whereas 41 percent of firms with 10 to 24 employees respond in the same way. Consistent with this response, it is the smallest firms that are most likely to indicate that turnover is "not at all important" in their decision not to offer coverage. Only 31 percent of the firms with 10 to 24 employees say high turnover is not at all important to their decision to not provide health insurance, compared with 58 percent for the smallest firms.

In fact, among firms that do not offer health coverage, employers with 10 to 25 employees appear to be concerned primarily with low profits and future health costs; the third most commonly cited reason for not offering health coverage among firms of this size is turnover.

Table IV-9
Importance of "High Turnover" as a Reason for Not Offering Health Insurance

	Number	Percent				
Firm Size	Responding	Total	Very	Somewhat	Not Too	Not at All
Fewer than 10 Employees	294	100	18	12	12	58
10-25 Employees	34	101	41	11	18	31

Note: Totals may not add to 100 due to rounding.

Despite the fact that high levels of turnover are significantly correlated with firms that do not offer health coverage, on average, employers do not cite high turnover as a very important reason for not offering health coverage. However, when firms are stratified by their level of turnover, employers appear more likely to say turnover is a very important reason for not offering health coverage as their level of turnover increases (Table IV-10). In other words, employers with high labor fluctuation rates are likely to cite turnover as an important reason for not offering health coverage.

Firms were divided into four categories of turnover, under 30 percent, 30-49 percent, 50-69 percent and 70-100 percent. Only 13 percent of the firms with less than a 30 percent turnover rate cited turnover as a very important reason for not offering health coverage. On the other hand, 54 percent of the firms with over 70 percent turnover cited turnover as a very important reason for not offering an employee health benefit.

Table IV-10
Percent of Firms Citing "High Turnover" and "Expense" as a Very Important Reason for Not Offering Health Benefits, by Level of Turnover

	Reasons for No Coverage	
Turnover Rate	High Turnover	Too Expensive
0-29%	13%	73%
30-49%	36%	72%
50-69%	17%	92%
70-100%	54%	81%

Not surprisingly, firms with high levels of turnover are also most likely to cite high expense as a reason for not offering health coverage. First, they tend to have a higher proportion of low-wage workers, and thus, a lower payroll per employee. The proportional expense of health benefits is

therefore higher. Firms with high turnover rates may incur greater administrative costs for the provision of health coverage than firms with lower turnover rates because of the greater number of employees initiating and terminating health coverage. Over 80 percent of our sample with a labor fluctuation rate of over 50 percent cited high expense as a very important reason for not offering health coverage.

Wage Structure

It is instructive to examine how responses of employers with different proportions of low-wage workers differ.

Table IV-11
Percent of Firms Citing a Particular Reason as Being a Very Important Explanation for Not Offering Health Coverage, by Proportion of Employees Earning Under $10,000, 1989

	Proportion of Employees Earning Under $10,000		
Reason	0 to 29 Percent	30 to 59 Percent	60 to 100 Percent
Expense	73	76	80
Profits	56	56	73
Future Costs	57	65	50
Not Needed to Attract Employees	22	23	30
Low Employee Interest	30	29	28
No Acceptable Plan	37	32	27
High Turnover	15	25	28

Regardless of the proportion of low-wage workers, expense is the most important reason firms do not offer health coverage, and the importance of this factor is little affected by the proportion of low-wage workers (see Table IV-11).

Firms with a high proportion of low-wage workers (over 60 percent) are much more likely to cite low profits as a very important reason for not offering health coverage. It appears that low wages can be used as a proxy to assess the impact of profitability upon the provision of health coverage. Here we find that greater numbers of employees earning under $10,000 is linked to an employer's perception of low profitability. Low profitability is correlated with a lack of health coverage.

Firms with higher proportions of low-wage workers are also more likely to say health coverage is not necessary to attract employees.

Conclusion

As a group, employers who do not offer coverage cite the expense of coverage, low profits, and concern about future costs as being the most important reasons for not providing coverage. When we look at the differences in responses among firms of different sizes, we do not find dramatic differences. The largest difference is related to turnover: firms employing from 10 to 25 employees cite employee turnover as a very important reason more frequently than smaller firms. Additionally, the proportion of low-wage workers and a firm's level of turnover also appear to impact the importance of various reasons for not offering health benefits.

V. Which Employers Drop or Add Coverage?

By Cynthia Sullivan

In addition to knowing the differences between firms that do and do not offer health coverage, it is useful to know about firms that drop or add health insurance benefits. In 1989, the HIAA employer survey collected information from 1,096 firms that were also interviewed in the 1988 survey. By looking at the data from this panel of employers, it is possible to gain some understanding of which firms change their coverage status and why those changes occur. In this section we look at the panel firms' changes in coverage, focusing on the same firm characteristics analyzed previously.

One generalization is possible: the kinds of firms that are least likely to offer health insurance—for example, small firms and firms in retail trade—are also most likely to change their decision regarding coverage; they are both more likely to add coverage and more likely to drop coverage.

As would be expected, most firms that offer health insurance in one year continue to do so in the next; and most firms that do not offer coverage maintain that status in the subsequent year. But for the firms that do make a change in coverage, more add coverage than drop it (Table V-1A).

Size

Tables V-1A and V-1B show the relationship between firm size and the likelihood of change in the provision of health insurance. (The same data are displayed in each table, but in the first case totals add to 100 percent vertically and in the second case horizontally.) The data show that it is smaller firms that are most likely to make a coverage change, either adding or dropping coverage. In part this reflects the general volatility of smaller firms: their financial situation is more likely to change substantially from year to year, so that their ability to afford coverage is more likely to change. Overall, employers are more likely to add than to drop health coverage. Firms with fewer than 10 employees appear to be distinctly different from larger firms, in that they are much more likely to drop their health coverage. For example, 30 percent of these smallest firms offered coverage when we first interviewed them (24 percent in "maintain" and 6 percent in "dropped"). So, in the simplest terms, six firms out of 30 dropped their coverage—a 20 percent rate. For the larger firms, only two of 69 firms dropped their coverage—a rate of 3 percent.

Table V-1A
Percent of Firms Changing Coverage Status, by Firm Size, 1988 to 1989

	Percent				
Firm Size	Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Fewer than 10 Employees	100	24	6	10	59
10-24 Employees	100	67	2	12	18
25-99 Employees	100	90	2	5	3
100 or More Employees	100	100	0	0	0

Note: Totals may not add to 100 due to rounding.

Table V-1B
Percent of Firms in Each Size Category, By Coverage Status, 1988 to 1989

Firm Size	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
		Percent		
Total	100	100	100	100
Fewer than 10 Employees	48	93	81	95
10-24 Employees	24	5	17	5
25-99 Employees	7	1	1	0
100 or More Employees	22	0	0	0

Note: Totals may not add to 100 due to rounding.

Industry

Firms most likely to drop their health coverage are those in construction (9 percent), followed by business services (8 percent), and retail trade (5 percent) (Table V-2). These are also the industries least likely to offer health insurance in the first place. None of the public sector firms, agricultural firms, transportation firms, or wholesale trade firms in our sample dropped health coverage. Ironically, among the industries more likely to add health coverage we also find retail trade (15 percent) and construction (9 percent). Other industries that commonly add health benefits include the two private sector industries that account for the majority of health coverage overall—finance/insurance (20 percent) and manufacturing (10 percent).

Table V-2
Percent of Firms Changing Coverage Status, by Industry, 1988 to 1989

Industry	Number Responding	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Government	155	97	0	1	1
Agriculture	12	*	*	*	*
Mining	7	*	*	*	*
Construction	48	38	9	9	44
Manufacturing	188	42	3	10	44
Transportation	55	19	0	2	79
Wholesale Trade	49	46	0	6	48
Retail Trade	139	24	5	15	57
Finance/Insurance	88	39	4	20	38
Business Services	342	30	8	6	56

*Sample size insufficient to detect significance.

The most volatile industries in terms of the provision of health coverage are business services, retail trade, and construction. Firms in these industries appear to be willing to add health benefits but are also more likely to drop benefits they currently offer. Industries dominated by small firms may experience cyclical profitability or other financial constraints, which may account for their volatility in the health insurance market.

Region

A decision to add coverage was most common among firms in the West, where 13 percent added coverage. Dropping coverage was most common in the South, where 7 percent discontinued coverage. The region having the least amount of movement in or out of coverage was the North Central region, which was the region with the highest proportion of firms without coverage in either year (58 percent). Overall, the South and West are the areas where the greatest number of changes in health coverage status are occurring.

Table V-3
Percent of Firms Changing Coverage Status, by Region, 1988 to 1989

	Percent				
Region	Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Northeast	100	46	4	9	41
North Central	100	33	3	5	58
South	100	39	7	10	44
West	100	34	4	13	49

Note: Totals may not add to 100 due to rounding.

Firms with Branch Locations

In our panel, only 12 percent of the firms interviewed had branches located in other parts of the country. These firms were much more likely to have coverage in both years (77 percent compared with only 37 percent for firms without branches), a result that is not surprising, since such firms are likely to be older, more firmly established, and probably more profitable. The proportion of firms dropping coverage was nearly the same for both groups, but firms without branches were more likely to add coverage (11 percent compared with 7 percent).

Table V-4
Percent of Firms Changing Coverage Status, by Presence of Other Branches, 1988 to 1989

	Percent				
	Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Have Other Branches	100	77	5	7	11
No Other Branches	100	37	4	11	48

Age of Firm

There is a relationship between firm age and changes in coverage. Firms age 10 or younger are both more likely to add coverage and to drop coverage than older firms (Table V-5). Firms in the two age groups were equally likely to have offered no coverage in either year (47 percent). It appears likely that older firms have made a firm decision whether or not to offer health coverage, while younger firms are more likely to be in the process of making that decision. Thus, younger firms disproportionately fall into the add and drop categories.

Table V-5
Percent of Firms Changing Coverage Status, by Age of Firm, 1988 to 1989

	Percent			
Age of Firm	Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
10 or Fewer Years	100	34	7	12	47
More than 10 Years	100	40	4	9	47

Wages

The relationship between wages and the status of health coverage is dramatic. Firms that maintain coverage or add coverage have work forces that have higher-than-average earnings; that is, they have a low proportion of low-wage workers and high proportion of high-wage workers. Similarly, firms that drop coverage or had no coverage have a disproportionate number of low-wage workers and relatively few high-wage workers. Not only can high proportions of low-wage employees be linked to firms that do not offer health insurance, it appears that high proportions of low-wage employees may influence some employers to discontinue their health benefits.

Table V-6
Percent of Employees at Various Wage Levels, By Coverage Status of Firm, 1988 to 1989

	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
		Percent		
Total	100	100	100	100
Less than $10,000	9	39	13	32
$10,000 to $30,000	64	44	64	53
More than $30,000	27	17	23	16
		Number		
Number Responding	874	19	38	154

Note: Totals may not add to 100 due to rounding.

The striking feature of Table V-7A is that firms having low proportions of low-wage workers were much more likely to maintain or add coverage than firms with higher proportions of low-wage workers. Only 9 percent of firms with more than 60 percent of their work forces earning less than $10,000 maintained their coverage, compared with 46 percent of firms with low proportions of low-wage workers.

Table V-7A
Percent of Firms in Each Coverage Category, by Their Proportion of Low-wage Workers, 1988 to 1989

Percent of Employees Earning Less than $10,000	Total	Percent Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
0 to 29%	100	46	3	11	40
30 to 59%	100	20	15	5	61
More than 60%	100	9	8	5	77

Note: Totals may not add to 100 due to rounding.

Table V-7B
Percent of Firms Having Various Proportions of Low-wage Workers, by Coverage Status of Firm, 1988 to 1989

Percent of Employees Earning Less than $10,000	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
		Percent		
Total	101	99	100	99
0% to 29%	91	46	87	65
30% to 59%	6	33	6	14
More than 60%	4	20	7	20
		Number		
Total Responses	874	19	38	154

Note: Totals may not add to 100 due to rounding.

Labor Fluctuation

Employees who join, leave, and turn over in a firm all represent administrative and actual costs to the firm who provides health coverage. For this reason, we expect firms with higher labor volatility to be less likely to offer health insurance and more likely to drop health insurance. Because of the importance of size in the provision of health benefits, growth in the employee labor force is expected to be correlated with the addition of an employee health benefits.[16]

[16]The characteristics of employees joining and leaving the firm were not found to be significant in the correlation analysis performed for the entire 1989 data set. However, these characteristics were significant in the panel when stratified by status.

Table V-8
Average Fluctuations in Work Force, by Changes in Coverage Status, 1988 to 1989

	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
		Percent		
Percent Joining	30	118	30	67
Percent Leaving	27	118	17	52
Turnover Rate	21	113	16	48
Labor Fluctuation Rate	36	124	30	71
		Number		
Number Responding	79	10	28	93

Not surprisingly, a high level of fluctuation in the employee labor force is correlated with the decision not to provide health benefits. Firms that never had health insurance have high average levels of these measures of employee fluctuation: percent joining firm (67 percent), percent leaving firm (52 percent), turnover (48 percent), and labor fluctuation (71 percent). Firms in this very small sample that drop their health insurance have extraordinarily high levels of labor volatility (the sample is not large enough to yield reliable statistics, although statistics are presented here illustratively).

Firms that maintain health coverage have less than 30 percent fluctuation in three of the four measures of employee movement. Firms adding health insurance had the lowest levels of employee fluctuation. On average, 30 percent of the employee labor force joins the firm, 17 percent of the employees leave the firm, resulting in a 16 percent turnover rate among firms that add health coverage. These numbers indicate that employee fluctuation has a great impact upon the status of health coverage. Firms that experience lower employee fluctuation are the most likely to add or maintain health benefits.

Full-time Employment

The percent of full-time employees is highest among firms that have maintained their health coverage (89 percent) and lowest among firms that have never had health coverage (75 percent). Likewise, firms that added health coverage have a slightly higher proportion of full-time employees (86 percent) than firms that have dropped health coverage (84 percent).

Table V-9
Percent of Full-time Workers, by Changes in Coverage Status, 1988 to 1989

	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Percent Full-time	89%	84%	86%	75%
Number of Responses	874	19	38	154

Premium Cost

The data from our panel include the average monthly premiums for firms that offered health coverage in 1988 and 1989.

Firms that dropped health coverage in 1989 had substantially higher premiums than those firms that maintained health coverage from 1988 to 1989. In addition, firms that added health coverage in 1989 experienced slightly lower premiums, on average, than firms that maintained health coverage. This latter finding supports the hypothesis that firms that add health coverage pay lower premiums than other firms during the first year they offer health coverage. These findings also suggest that firms drop health coverage because of the high cost of premiums.

Table V-10
Changes in Premiums for Firms with Fewer than 25 Employees, by Coverage Status, 1988 to 1989[17]

	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
1988 Premiums				
Individual	$101	$123	n/a	n/a
Family	$216	$224	n/a	n/a
1989 Premiums				
Individual	$134	n/a	$124	n/a
Family	$281	n/a	$269	n/a

Panel Reasons for Not Offering Health Benefits

The panel can be used to compare firms that dropped their coverage to firms that did not have coverage in the last two years. It appears that firms that dropped their health coverage in 1989 had significantly different reasons for not offering coverage than firms that have not offered health coverage in the past two years.

Firms that have never offered health coverage say they do not provide this benefit primarily because of the expense of the benefit and low firm profits. Firms that drop health coverage are most concerned about future health costs. It appears that as some firms experience rising health care premiums, they decide the health benefit is not worth the potential increases in the employer contributions necessary to maintain health coverage. The actual expense of health care is second to the concern over future health costs among firms that drop their health coverage.

Firms that drop their health coverage cite low employee interest as the third most important reason for not offering health coverage. Thus, after initiating a health benefits package, 38 percent of the employers experience (perceive) a lack of employee interest in the health benefit. Perhaps employees have insurance elsewhere and decline coverage through their own employer, or they elect not to pay the expense for their share of the employer-sponsored premium.

[17]The majority of firms adding and dropping coverage are small firms. However, many of the firms that maintain coverage are larger. A comparison of premiums based on all firms would be biased by the presence of more small firms in the add/drop categories and more large firms in the "maintain" category. Thus, we present our data for small firms only.

Table V-11
Percent of Firms Citing a Particular Reason as Very Important in the Decision Not to Offer Health Insurance, Among Firms that Dropped Coverage or Had No Coverage Either Year, 1988 and 1989

Reasons	Dropped	No Coverage Either Year
Future Cost	55%	55%
Expense	44%	78%
Low Employee Interest	38%	28%
Not Needed to Attract Employees	0%	26%
Profits	27%	67%
No Acceptable Plan	29%	33%
High Turnover	15%	24%
Number of Firms	14	104

Conclusion

Although firms are more likely to add coverage than drop it, the majority of firms stay within the same coverage status from year to year. Generally, firms adding coverage resemble firms that maintain coverage, especially in terms of labor fluctuation statistics and their proportion of low-wage workers. This further emphasizes the underlying importance of these two characteristics in the decision to offer health benefits.

VI. Types and Characteristics of Health Plans

By Steven DiCarlo and Clare Lippert

In this chapter we examine the types of plans offered and plan enrollment. Within plan types we look at premium costs, employer and employee contributions toward premiums, and benefit coverage levels. We describe cost-sharing arrangements and the prevalence of cost containment features, such as utilization review and pre-admission certification.

Conventional Insurance and Alternative Delivery Systems

Employers often provide workers a choice of health plans, typically offering in addition to a conventional insurance plan a Preferred Provider Organization (PPO) or Health Maintenance Organization (HMO) or both. Figure VI-1 shows the kinds of plans offered by firms in our survey.[18] As expected, conventional plans are most common; 82 percent of firms providing health insurance offer a conventional plan. Firms with fewer than one hundred employees are less likely to offer PPOs and HMOs than larger firms.

This restriction in plan choice appears to be a function of size of firm. We have seen that as firm size increases, the likelihood of offering health insurance increases. Figure VI-1 shows that the likelihood of offering alternative delivery systems also increases with firm size.

Among small firms, a decision to offer or not offer a particular option is more likely to reflect the personal preferences of the owner. For example, the owners may have established relationships with providers that they do not want to break or limit. Moreover, owners of small firms may often lack the time, resources, or inclination to research and then administer a second plan.

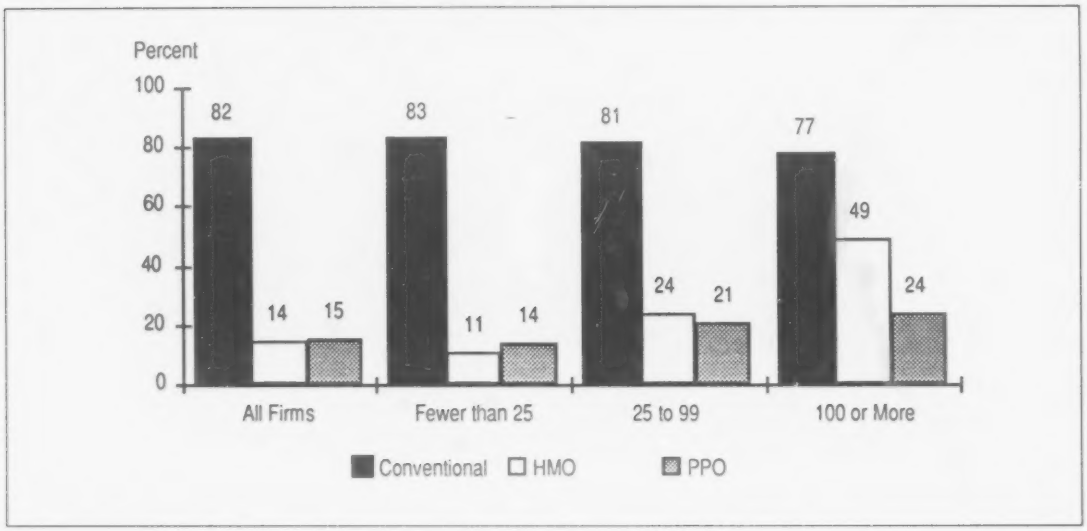
Small firms (fewer than 25 employees) are more likely to offer PPOs than HMOs. This preference can be attributed to several factors. PPOs are relatively easy to add on to existing indemnity plans, whereas an HMO offering represents a more substantial change in the way health benefits are delivered. Although the HMO Act of 1974 required employers to offer an HMO if available, firms with fewer than 25 employees were exempt from the requirement. Finally, HMOs may not be readily available to the smallest employers.[19]

---

[18]Once it was determined that a firm offered health insurance, it was asked what types of plans it offered: conventional, PPO, and/or HMO. A firm could answer affirmatively to one, two, or all three of these questions to reflect single, double, or triple option offerings. A firm could also indicate the number of plans it had within each category; i.e., two conventional plans; one low option and one high option. Firms were asked to respond to the survey based on their plan with the largest enrollment for each category (HMO, PPO, conventional).

[19]HMOs, like other health benefit entities, may not accept groups down to one life. Because there are fewer HMOs to start with (compared with conventional coverage), any HMOs that do not write small groups greatly decrease the availability of such coverage for small employers.

Figure VI-1
Percent of Firms Offering Various Plan Types for Firms Offering a Plan, by Firm Size, 1989



Given the proportion of firms that offer different types of plans, it is useful to know what proportion of *employees* are offered such plans as well (Table VI-1).

Nationwide, PPOs are offered to 25 percent of employees of large firms but to only 13 percent of employees in small firms. The HMO option is also more frequently available to employees in large firms. Overall, 58 percent of employees in large firms are offered an HMO plan compared with only 9 percent in small firms. PPOs are less readily available than HMOs, even in large firms.

Table VI-1
Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 25 Employees	25 or More Employees
Conventional	82	83	82
HMO	42	9	58
PPO	21	13	25

Health plan offerings vary by region (Table VI-2). PPO plans display the largest fluctuations across regions and are offered to more employees in the West than elsewhere. In part, this reflects the fact that the PPO trend began in the West, particularly in California. A greater percentage of employees in the Northeast and West are offered an HMO plan than employees in the South or North Central regions. Though universally available, conventional plans are more commonly offered to employees in the Northeast, South, and North Central regions than in the West.

Table VI-2
Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Region, by Firm Size, 1989

Region	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or more Employees
		Conventional Plans	
Northeast	93	90	94
North Central	83	81	84
South	88	94	85
West	59	63	57
Total	82	83	82
		HMO Plans	
Northeast	53	14	74
North Central	41	8	56
South	28	5	41
West	49	10	71
Total	42	9	58
		PPO Plans	
Northeast	7	1	11
North Central	21	18	23
South	17	4	23
West	45	38	49
Total	21	13	25

Although industries differ in the frequency with which they offer coverage, the differences are most striking in terms of the availability of HMO and PPO coverage (Table VI-3). While 42 percent of all employees are offered an HMO plan, the range varies across industries from 15 percent in construction to 58 percent in government. Firms in manufacturing and service are the only employers to offer an HMO plan to most of their employees. The percentage of employees offered a PPO option ranges from 32 percent of government employees to 8 percent of transportation workers.

Table VI-3
Percent of Employees Offered Conventional, HMO, or PPO Plans Among Employers Offering a Plan, by Industry, by Firm Size, 1989

Industry	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or More Employees
	Conventional Plans		
Total	82	83	82
Goods producing	82	79	83
Agriculture	*	*	*
Mining	*	*	*
Construction	77	80	67
Manufacturing	83	75	85
Service producing	82	85	81
Transportation	88	*	91
Wholesale	90	93	85
Retail	91	89	92
Finance	84	79	86
Services	72	80	71
Government	74	*	73
	HMO Plans		
Total	42	9	58
Goods producing	41	10	57
Agriculture	*	*	*
Mining	*	*	*
Construction	15	8	39
Manufacturing	50	14	59
Service producing	42	9	58
Transportation	41	*	45
Wholesale	23	12	39
Retail	35	2	57
Finance	46	2	67
Services	50	14	62
Government	58	*	64
	PPO Plans		
Total	21	13	25
Goods producing	20	14	23
Agriculture	*	*	*
Mining	*	*	*
Construction	15	13	21
Manufacturing	22	18	23
Service producing	22	13	26
Transportation	8	*	11
Wholesale	20	7	40
Retail	14	11	16
Finance	25	21	27
Services	29	18	32
Government	32	*	34

* Sample size too small to detect statistical significance.

There is industry-by-industry variance of conventional plans, although the variation is less dramatic than for HMOs and PPOs. The percentage of employees offered conventional plans

ranges from 72 percent in the service industry to 91 percent in the retail industry. Comparisons by firm size also yield an interesting split across industries. Employees in small construction, service, and wholesale firms are more likely to be offered a conventional plan than their counterparts in larger firms. On the other hand, employees of large firms in all other industries are more likely to be offered a conventional plan than small-firm employees in the same industries.

Since it is generally perceived that PPO plans replace conventional plans (or conventional plans evolve into PPO plans), it is not surprising to see that industries least likely to offer conventional plans to their employees (service and government) are most likely to offer a PPO option. The reverse is true also: employees in industries most inclined to offer a conventional plan (retail, wholesale, and transportation) are less likely to be offered a PPO option.

Health Plan Enrollment

Not all individuals who are offered plans enroll. In this section we examine enrollment in different plans.

Enrollment differs by firm size. For all firm sizes, a large majority of enrollees are in conventional plans, but a greater percentage of small-firm eligibles choose a conventional plan (because it was the only choice). Not surprisingly, enrollment in HMOs is higher in larger firms. PPO enrollment follows no consistent pattern; in some regions PPO enrollment is higher among employees in smaller firms, in other regions PPO enrollment is higher among larger firms.

Health plan enrollment varies considerably by region of the country (Table VI-4). The West has significantly greater PPO penetration (32 percent) and HMO enrollment (23 percent) than other regions, and it has relatively fewer enrollees in conventional plans (45 percent). The North Central region has the second largest enrollment in HMO and PPO plans with 13 percent enrolled in each non-conventional plan. The Northeast has greater enrollment in HMO plans (16 percent) than PPO plans (3 percent), but enrollees in the South are slightly more likely to be in PPO plans (10 percent) than HMO plans (8 percent). In all regions except the West, the majority of enrollees are still in conventional plans.

Industries also show different enrollment patterns (Table VI-5). HMO enrollment is greatest in government firms, where 24 percent of enrollees are in an HMO plan. More than 20 percent of service enrollees are in an HMO plan. These two industries also have the highest rates of PPO enrollment, approaching 20 percent each. Not surprisingly, conventional plan enrollment is greatest in industries most often offering such plans—namely, transportation, retail and wholesale. HMO and PPO enrollment is also lowest in these industries.

Table VI-4
Percent of Employees Enrolled in Various Plan Types, by Region, by Firm Size, 1989
(Percent of Enrollees)

Region	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or more Employees
		Conventional Plans	
Northeast	81	89	70
North Central	74	78	71
South	82	93	76
West	45	57	38
Total	71	81	66
		HMO Plans	
Northeast	16	10	26
North Central	13	6	17
South	8	3	11
West	23	7	34
Total	16	6	20
		PPO Plans	
Northeast	3	1	4
North Central	13	16	12
South	10	4	13
West	32	36	28
Total	13	13	14

Table VI-5
Percent of Employees Enrolled in Various Plan Types, by Industry, by Firm Size, 1989

Industry	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or More Employees
	Conventional Plans		
Total	71	81	66
Goods producing	71	78	68
Agriculture	*	*	*
Mining	*	*	*
Construction	75	79	61
Manufacturing	69	73	68
Service producing	71	82	65
Transportation	83	*	84
Wholesale	79	84	71
Retail	81	89	76
Finance	71	79	67
Services	60	76	54
Government	59	*	56
	HMO Plans		
Total	16	6	20
Goods producing	13	8	21
Agriculture	*	*	*
Mining	*	*	*
Construction	13	8	28
Manufacturing	13	9	21
Service producing	14	6	20
Transportation	6	*	8
Wholesale	11	11	9
Retail	9	2	16
Finance	15	0	20
Services	19	6	27
Government	17	*	26
	PPO Plans		
Total	13	13	14
Goods producing	16	14	11
Agriculture	*	*	*
Mining	*	*	*
Construction	12	13	11
Manufacturing	18	18	11
Service producing	15	12	15
Transportation	11	*	8
Wholesale	10	5	20
Retail	10	9	8
Finance	14	21	13
Services	21	18	19
Government	24	*	18

* Sample size too small to detect statistical significance.

Length of Time with Carrier

An important characteristic of the small group market is the frequency with which employers change carriers.[20] The data set does not allow us to evaluate how long a firm has offered coverage or whether the firm has gone through cycles of coverage and non-coverage, but it does contain information on how long a particular carrier has administered each plan offered.

Across all firm sizes, conventional plans show the longest average tenure, as shown in Table VI-6. The shorter duration of PPO and HMO arrangements is not surprising given the dominance of conventional plans in the market place and the fact that HMOs and PPOs have only recently begun to account for a significant share of the market. The length of time with a carrier also varies significantly by firm size, with small firms having shorter tenure than larger firms, 7.3 years compared with 9.8 years, respectively.

Table VI-6
Average Number of Years Employer* Has Offered Plan Through Current Carrier, by Firm Size, 1989

		Firm Size	
Plan Type	All Firms	Fewer than 25 Employees	25 or More Employees
Conventional	7.5	7.2	9.8
HMO	5.1	4.8	5.5
PPO	3.6	3.5	4.2

*Includes public employers.

Another way to approach firm-carrier association is to examine the proportion of firms, by size, that have been with one carrier for less than some specified number of years. The strongest pattern was found for firms that had been with their carrier five years or more compared with firms that had been with their carrier fewer than five years. The results of this exercise are shown in Table VI-7. For conventional plans, 55 percent of firms with fewer than 25 employees had been with one carrier for less than five years, compared with only 46 percent of firms with 25 or more employees.

Table VI-7
Percent of Firms that Have Been with the Same Carrier Fewer than Five Years, by Plan Type, by Firm Size, 1989

		Fewer than 25	25 or More
	All Firms	Employees	Employees
Conventional	54	55	46
HMO	54	52	59
PPO	81	81	80

Similar but weaker patterns are evident for those firms offering an HMO option. Just slightly more than half (52 percent) of small firms offering an HMO reported having been with the HMO for less than five years, compared with 59 percent for firms with 25 or more employees. This may reflect the relatively recent marketing of HMOs in many areas generally, and the even more recent entry of alternative delivery systems into the small employer market.

[20]Throughout this section the term "carrier" is meant to refer to plan administrators, including HMOs, TPAs, and insurers.

Across all firm sizes, approximately 80 percent of employers offering a PPO have been with the same PPO carrier fewer than five years. Recalling that less than 45 percent of all firms offer PPO or HMO options, the figures for PPO and HMO carrier tenure indicate that firms are newly adding these plans, rather than showing that firms are changing carriers. On the other hand, for conventional plan relationships, a high proportion of firms with short tenure implies that these firms are changing carriers.

Satisfaction Levels

Respondents were asked how satisfied they were with their coverage, in terms of the plan overall and, specifically, plan costs. They were also asked if they planned to continue with their current plan. Tables VI-8 and VI-9 show the tabulations of the responses for conventional plans.[21]

Table VI-8 contains satisfaction ratings according to how long the firm has been with its carrier. The longer firms have been with a carrier, the more dissatisfied they become with costs, but at the same time they become slightly more satisfied with the plan overall. Table VI-9 shows that a longer firm-carrier relationship also encourages firms to say that they expect to continue with the plan.

Smaller firms (fewer than 25 employees) are less satisfied than larger firms with the overall plan and the cost of the plan, and are less likely to continue a plan regardless of how long they have been with a carrier. However, even small firms are very unlikely to drop their plan.

Dissatisfaction with costs is a theme that crosses the distinction between firms that offer health insurance and those that do not offer health benefits. The expense of health benefits is the most commonly cited reason for not offering such benefits. However, firms that do offer coverage continue to be frustrated by the costs of such benefits, but apparently few actually drop their coverage. Thus, it seems that there must be some underlying value that pushes firms to continue offering health insurance even if they are dissatisfied with plan costs.

[21]Because of the pervasiveness of conventional plans in the small-firm market, we limit our satisfaction discussion to them.

Table VI-8
Firms' Degree of Satisfaction with Conventional Health Plan, by Tenure of Plan, by Firm Size, 1989
(Percent of Firms)

Firm Size	Satisfaction about Cost: All Firms	Satisfaction about Cost: Plan Tenure Less Than 5 Years	Satisfaction about Cost: Plan Tenure 5 or More Years	Overall Satisfaction with Plan: All Firms	Overall Satisfaction with Plan: Plan Tenure Less Than 5 Years	Overall Satisfaction with Plan: Plan Tenure 5 or More Years
Not Satisfied						
Firms of All Sizes	31	28	35	10	10	11
1-24 Employees	32	29	35	11	10	11
25 or More Employees	28	12	33	10	9	10
So-So						
Firms of All Sizes	21	20	23	16	17	15
1-24 Employees	22	20	23	17	18	15
25 or More Employees	19	20	17	13	15	11
Satisfied						
Firms of All Sizes	48	52	43	74	73	75
1-24 Employees	47	51	42	73	72	74
25 or More Employees	54	59	50	78	76	80

Table VI-9
Expectations About Continuing Conventional Plan, by Tenure of Plan, by Firm Size, 1989
(Percent of Firms)

	All Firms	Plan Tenure Less Than 5 Years	Plan Tenure 5 or More Years
Will Drop Plan			
Firms of All Sizes	12	13	11
Fewer than 25 Employees	12	14	11
25 or More Employees	10	12	9
Will Continue Plan			
Firms of All Sizes	88	87	89
Fewer than 25 Employees	88	86	89
25 or More Employees	90	88	91

Cost Sharing

In an effort to control employers' health care outlays, cost-sharing features are included in many health plans. These features include coinsurance and deductibles, and some firms require employees to pay a portion of the health benefit premium. Cost-sharing features tend to vary by plan, and are often limited by a predetermined maximum amount that an enrollee has to pay out of pocket. The proportion of employees whose employer pays 100 percent of the premium has declined since 1985 (Gabel *et al.*, 1989; ICF, 1987; U.S. Department of Labor, 1986). A recent

Foster Higgins study found that higher levels of cost sharing in the form of coinsurance or deductibles are associated with lower per-employee medical plan costs (A. Foster Higgins, 1990). The data from the HIAA survey shed further light on the prevalence of cost sharing.

The proportions of employees facing various cost-sharing provisions are shown in Table VI-10. Although "80-20" percent coinsurance arrangements in which the plan pays 80 percent and the insured pays 20 percent are generally accepted as standard for conventional plans, almost 28 percent of employees face coinsurance rates of less than 20 percent. Smaller firms are more likely to offer coverage with lower coinsurance rates. In addition, a higher proportion of small-firms' employees pay less than 10 percent of their premium.[22] On the other hand, a higher proportion (81 percent) of employees working for larger firms have individual deductibles of $200 or less, compared with 64 percent of small-firm employees. On average, larger firms' employees have higher out-of-pocket limits than employees of small firms. So, although larger firms' employees tend to have lower deductibles than small firms' employees, their higher out-of-pocket limits will force them to spend more of their own money on health care.

Table VI-10
Percent of Employees Whose Conventional Coverage Has Various Cost-sharing Features, by Firm Size, 1989

		Firm Size	
	All Firms	Fewer than 100 Employees	100 or More Employees
Out-of-Pocket Limit Less Than $1,000 (single policy)	59%	69%	45%
Lifetime Benefits Limit Less than $1 Million	59%	66%	49%
Coinsurance Rate Less than 20 Percent	28%	34%	19%
Deductible			
Individual Deductible $200 or Less	71%	64%	81%
Family Deductible $400 or Less	65%	62%	69%
Employee Share of Premium			
Individual Less than 10 Percent	60%	64%	55%
Family Less than 10 Percent	40%	44%	34%

Table VI-11 illustrates some of the relationships among these cost-sharing provisions. For example, coinsurance rates of less than 20 percent appear to be strongly associated with lower employee shares of premium for both individual and family policies. A weak pattern is noticeable in that as deductibles rise, so does the average employee share of premium. No pattern could be detected between deductibles and coinsurance rates. Regardless of firm size, a lower deductible or lower coinsurance rate generally translates to a higher average premium, while higher deductibles or coinsurance can be linked to lower premiums. The level of out-of-pocket limits and lifetime benefits limits does not appear to affect plan premium. An absence of cost-sharing features may be due to labor negotiations or firm paternalism. There do not appear to be trade-offs between cost-sharing features (for example, a higher deductible is not associated with lower coinsurance).

[22]Premiums and premium cost sharing are discussed further below.

Table VI-11
Total Monthly Premium and Employee Cost Sharing for Family and Individual Plans, by Firm Size, 1989

	Average Total Premium			Average Employee Share		
		Firm Size			Firm Size	
	All Firms	Fewer than 100 Employees	100 or More Employees	All Firms	Fewer than 100 Employees	100 or More Employees
			Family Plans			
Deductible						
$200 or less	$278	$281	$272	24%	26%	21%
$201 to $400	$270	$277	$263	23%	25%	21%
$401 to $500	$262	$276	$235	28%	28%	29%
More than $500	$252	$245	$262	31%	30%	32%
Coinsurance Rate						
Less than 20 Percent	$272	$278	$258	19%	16%	26%
20 Percent or More	$265	$269	$262	28%	32%	23%
			Individual Plans			
Deductible						
$200 or less	$122	$126	$116	13%	15%	9%
$201 to $400	$118	$124	$114	14%	16%	13%
$401 to $500	$120	$126	$106	17%	17%	16%
More than $500	$114	$113	$115	15%	13%	23%
Coinsurance Rate						
Less than 20 Percent	$127	$133	$111	8%	8%	9%
20 Percent or More	$116	$118	$115	17%	19%	14%

Premium Sharing

Premium cost sharing for conventional plans is detailed in Table VI-12. Employers in the Northeast pay the greatest proportion of family premium, contributing 82 percent. In contrast, employers in the South provide the lowest proportion at 68 percent. For individual coverage, employers contribute the highest percentage of premium in the West (89 percent), while employers in the South contribute the lowest (84 percent) amount of premium. These data are consistent with the notion that employers contribute a lower percentage of family premiums than of individual premiums.

Table VI-12
Total Monthly Premium and Average Employer and Employee Share for Conventional Plans, by Region, 1989

Region	Individual Coverage			Family Coverage		
	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)
Total	$119	86	14	$268	74	26
Northeast	$130	85	15	$301	82	18
North Central	$109	86	14	$243	78	22
South	$110	84	16	$246	68	32
West	$140	89	11	$301	73	27

The percentage of premium paid by employers varies somewhat by industry. Table VI-13 shows these differences.

Table VI-13
Total Monthly Premium and Average Employer and Employee Share for Conventional Plans, by Industry, 1989

	Individual Coverage			Family Coverage		
	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)
Total	$119	86	14	$268	74	26
Goods producing	$120	85	15	$271	77	23
Agriculture	*	*	*	*	*	*
Mining	*	*	*	*	*	*
Construction	$122	80	20	$279	74	26
Manufacturing	$117	86	14	$267	77	23
			100			100
Service producing	$118	87	13	$266	73	27
Transportation	$117	93	7	$265	77	23
Wholesale	$126	89	11	$270	75	25
Retail	$110	79	21	$253	71	29
Finance	$118	91	9	$280	71	29
Services	$120	87	13	$265	73	27
Government	$131	96	4	$271	71	29

*Sample size insufficient to detect significance.

While enrollees pay on average 26 percent of family premium and 14 percent of individual premium, a significant percentage of enrollees pay nothing toward their premium. Tables VI-14, VI-15, and VI-16 show variations by industry, region, and size. Nationally, 36 percent of enrollees with family coverage do not contribute toward their premium. For individual coverage, more than half (57 percent) of all enrollees pay nothing for coverage. Table VI-16 illustrates a very interesting pattern of premium sharing as firm size increases; small firm employees are more likely to pay nothing toward their coverage than are employees of larger firms.

Table VI-14
Percent of Employees Whose Employer Pays All, Part, or None of Conventional Plan Premium, by Industry, 1989

Industry	Individual Coverage Employer Share of Premium			Family Coverage Employer Share of Premium		
	None	Part	All	None	Part	All
Total	3	40	57	5	59	36
Goods producing	3	46	51	4	45	35
Agriculture	*	*	*	*	*	*
Mining	*	*	*	*	*	*
Construction	3	46	51	5	58	37
Manufacturing	3	48	49	4	64	34
	3					
Service producing	2	36	61	6	58	37
Transportation	2	28	71	5	56	39
Wholesale	6	35	63	11	45	44
Retail	10	46	49	7	56	37
Finance	0	33	67	3	71	26
Services	3	35	61	3	57	37
Government	0	28	69	4	60	35

*Sample size insufficient to detect significance.

Table VI-15
Percent of Employees Whose Employer Pays All, Part, or None of Conventional Plan Premium, by Region, 1989

Region	Individual Coverage Employer Share of Premium			Family Coverage Employer Share of Premium		
	None	Part	All	None	Part	All
Total	3	40	57	5	59	36
Northeast	3	45	53	3	54	42
North Central	3	38	59	3	57	40
South	3	40	57	7	64	29
West	4	35	61	6	61	34

Table VI-16
Share of Premium Paid by Employees in Conventional Plans, by Firm Size, 1989

Employee Share of Premium	Total	Firm Size				
		1-9 Employees	10-24 Employees	25-99 Employees	100-499 Employees	500+ Employees
				Individual		
None	57	67	61	61	53	48
1-19%	14	6	12	13	20	23
20-39%	14	10	7	12	16	21
40-99%	11	9	17	13	9	7
100%	3	8	3	1	2	1
				Family		
None	36	49	43	25	26	29
1-19%	13	14	9	2	16	18
20-39%	24	16	18	23	24	33
40-99%	23	15	23	41	30	19
100%	5	7	6	9	4	2

Cost Containment

In general, the proportion of firms whose conventional plans incorporated prospective or concurrent utilization review as cost-containment features increased from 1988 to 1989.[23] This is supported by the findings of a 1988 Managed Care Survey by the HIAA that showed that utilization review activities were more and more frequently offered by insurers. (Gabel *et al.*,1989). Mandatory second opinion for surgery made the largest gain, while preadmission certification, already offered by 59 percent of all firms, made only slight gains (Table VI-17).

When cost-containment provisions are examined by size of firm, a number of patterns begin to develop. In 1988, small firms (under 25 employees) were slightly more likely to have preadmission certification and high-cost case management provisions, but lagged significantly in concurrent utilization review and mandatory second opinion surgery requirements compared with larger firms. By 1989, the proportion of very small firms whose plans included mandatory second opinions for surgery paralleled that of larger firms. A different relationship is seen for high-cost case management; the proportion of very small firms with this provision increased only slightly while it became the fastest growing cost-containment technique in plans of larger firms. The relationship between very small and large firms remained consistent for preadmission certification and utilization review (although more firms of all sizes included these provisions in their plans in 1989).

Smaller employers appear to be somewhat cautious about getting into the cost-containment game, although they are beginning to play. This is illustrated in the "catching up" of small firms on mandatory second opinion for surgery provisions from 1988 to 1989 and in the "sprint ahead" of larger firms in the high-cost case management arena. Large firms have found high-cost case management to be an effective cost-control technique and have continued to add these provisions to their plans. From this, one would expect many small firms to add high-cost case management provisions to their plans in the next few years.

[23] The figures in these tables are based on interviews of a panel of firms contacted in both 1988 and 1989.

Table VI-17
Percent of Firms with Conventional Plans that Include Various Cost-containment Techniques, 1988 and 1989*

Technique	All Firms	Fewer than 25 Employees	25 to 99 Employees	100 or More Employees
		1988		
Preadmission Certification	59	59	70	58
Utilization Review	50	47	58	57
Mandatory Second Opinion	31	25	44	41
Case Management	32	32	32	32
		1989		
Preadmission Certification	65	65	72	65
Utilization Review	54	51	69	63
Mandatory Second Opinion	44	45	46	42
Case Management	39	34	50	51

*Data are based on panel of firms that responded in both 1988 and 1989, so that the data show accurate trends in application of cost-containment techniques.

Benefit Levels

Although insurers have experienced growth in both the HMO and PPO markets, conventional group health plans continue to dominate the group health care market. For this reason, this analysis concentrates on conventional group health plans. Findings from the HIAA survey indicate that there is not a single prototype that can be used to describe a "typical" plan offered by a majority of employers. There are, however, a few patterns in the types of benefits packages that are offered by employers.

The HIAA survey asked employers if the following nine benefits were offered in the health plan they sponsored: adult periodic exams, preventive diagnostic procedures, outpatient mental health, inpatient mental health, dental care, well-baby care, home health care, drug treatment, and alcohol treatment[24]. Table VI-18 shows the proportion of employees covered by these benefits for different firm sizes.

Table VI-18 illustrates the proportion of employees covered by various benefits, indicating that smaller firms are more likely to offer preventive services (adult physicals, well-baby care, and preventive diagnostic procedures) than are larger firms. However, employees of large firms are more likely to have drug and alcohol treatment coverage. Dental benefits remain a less common element of health benefits packages, regardless of size.

[24]Because of time considerations, the survey could not ask about all the benefits included in a particular plan. These nine benefits were chosen because they have received much attention of late because of the emphasis on preventive care and cost.

Table VI-18
Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Firm Size, 1989

	Adult Physical Exam	Well-Baby Care	Preventive Diagnostic Procedures	Home Health Care	Inpatient Mental Health	Outpatient Mental Health	Drug Treatment	Alcohol Treatment	General Dental Care
Total	34	50	67	73	95	90	85	86	37
Fewer than 25 Employees	40	52	71	59	90	81	75	77	27
25 or More Employees	29	48	64	83	98	97	93	93	46

Coverage for selected health benefits varies by region and industry as well as size (see Table VI-19, VI-20). The proportions of enrollees covered for preventive benefits (that is, adult physical exams, well-baby care, and preventive diagnostic procedures) exhibit broad variations. The South and West consistently have the lowest proportion of enrollees covered for preventive benefits. Oddly, the retail and construction industries have high proportions of enrollees covered for these three benefits even though these industries are among the least likely to offer benefits in the first place.

Table VI-19
Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Region, 1989

	Adult Physical Exam	Well-Baby Care	Preventive Diagnostic Procedures	Home Health Care	Inpatient Mental Health	Outpatient Mental Health	Drug Treatment	Alcohol Treatment	General Dental Care
Total	34	50	67	73	95	90	85	86	37
Northeast	37	46	77	71	94	89	86	87	38
North Central	34	62	71	82	98	95	96	95	37
South	31	49	60	70	94	88	77	79	31
West	32	38	63	72	93	89	88	90	54

The proportion of employees covered by each benefit ranges by approximately 10 percentage points across regions, except for well-baby care and general dental care. Nearly nine of 10 enrollees in all regions have coverage for inpatient and outpatient mental health services. Among regions, North Central enrollees are most often covered for the selected benefits. In contrast, the South displays the lowest coverage levels of all regions.

Government and service employees are covered for more benefits than enrollees in any other industry. Of specific benefits surveyed, dental coverage shows greatest variation across industries. The percentage of enrollees covered for dental coverage ranges from 19 percent among construction workers to 51 percent for transportation workers.

Table VI-20
Percent of Enrollees in Conventional Plans Covered for Selected Benefits, by Industry, 1989

	Adult Physical Exam	Well-Baby Care	Preventive Diagnostic Procedures	Home Health Care	Inpatient Mental Health	Outpatient Mental Health	Drug Treatment	Alcohol Treatment	General Dental Care
Total	34	50	67	73	95	90	85	86	37
Goods producing	31	44	64	76	92	88	86	86	40
Agriculture	*	*	*	*	*	*	*	*	*
Mining	*	*	*	*	*	*	*	*	*
Construction	38	53	69	67	88	76	78	80	18
Manufacturing	29	39	64	78	93	91	89	88	47
Service producing	35	53	69	72	96	91	84	86	36
Transportation	25	54	49	73	99	98	87	85	55
Wholesale	26	56	73	72	99	90	79	82	35
Retail	43	60	78	57	93	82	80	78	31
Finance	44	45	62	74	95	92	81	88	42
Services	34	52	71	80	97	95	91	93	31
Government	39	45	69	85	100	91	97	97	28

*Sample size insufficient to detect significance.

Conclusion

Although the proportion of firms offering (and employees enrolling in) alternative delivery system plans such as HMOs and PPOs continues to increase, small firms remain least likely to offer such arrangements. The comparison of conventional plans indicates that small firms require less employee cost sharing and are somewhat less likely to offer some benefits than their larger counterparts. Small firms also tend to be less satisfied with both the cost of their plans and with the plans overall, but they indicate only slightly greater likelihood of discontinuing their plan. The cost-containment data suggest that smaller firms may be waiting to see how effective various initiatives and benefit packages are before implementing changes in their own plans.

Appendix A

HIAA Employer Survey

Each year since 1987, the Health Insurance Association of America has conducted an annual survey of employee health benefits. The sample grew from 1,500 employers in 1987 to approximately 2,500 employers in 1989. The employers are interviewed about whether or not they provide employee health coverage, and what type of health coverage they provide. Each year a panel of employers is recontacted so that HIAA can track the dynamic and static trends of the health benefits market. The primary purpose of the survey is to achieve sample estimates that can be used to make generalizations about employee health coverage across the nation.

The reader should bear in mind that any survey data should be used with some degree of caution. Small employers do not normally have benefit managers and must devote their energies to an immense array of business activity. Therefore, they may not be intimately familiar with details regarding trends. While the absolute value of a given statistic should be viewed with caution, the substantial differences between statistics provide important information.

In May of 1989, Westat, Inc., a Maryland-based field research firm, interviewed employee benefit managers from 2,621 employers. The sample included large, mid-sized, and small firms from the private and public sectors. Private employers were drawn from a list of employers provided by Dun and Bradstreet (Dun and Bradstreet provides credit ratings for firms seeking credit). Public employers were selected from a listing of state, municipal, and county governments developed by the Health Care Financing Administration in 1984. Both private and public samples included a panel group interviewed in the 1988 HIAA survey, as well as a new independent selection of private employers. The final 1989 sample includes 1,096 respondents from 1988 and 1,525 new firms (see Table A-2). Missing from the sample are federal employees and workers obtaining their health insurance through unions, religious institutions, or professional organizations.

The data used in this report are the result of interviews with 2,048 employers that provide health insurance to their employees and 573 firms that do not. Overall, this represents a response rate of 66 percent. The interviews included over one hundred questions about the firm's largest conventional, health maintenance organization (HMO) and preferred provider organization (PPO) plans. Questions to determine firm characteristics were also asked, such as number of employees, wage structure, proportion of full-time employees, etc. The typical interview lasted 20 to 25 minutes for firms offering health benefits.

The estimates pertaining to group health insurance that are provided in this report based on the employer survey data have been derived from a three-step process that includes the treatment of outliers, imputation of missing values, and the application of a multi-level weighting strategy. This method allows us to present and discuss national estimates about that part of the U.S. population that is covered by private health insurance and about characteristics of firms that elect, or do not elect, to provide health benefits to their employees.

The Sample

Table A-1
Sample Distribution, by Firm Size

Firm Size	Panel		New
	Private	Public	Private
Fewer than 5 Employees	188	2	380
5-9 Employees	53	2	114
10-24 Employees	50	4	119
25-49 Employees	27	4	45
50-99 Employees	23	15	49
100 or More Employees	598	130	818
SUBTOTAL	1,096		1,525
TOTAL 1989 SAMPLE	2,621		

Table A-2
Response Rates by Group and Firm Size

Sample Group	Number Responding	Response Rate
1989 Sample	2,621	66%
Panel	1,096	
Private	943	75%
Government	153	92%
New		
Private	1,525	60%
Firm Size		
1-19 Employees	879	47%
20-99 Employees	196	68%
100-999 Employees	614	79%
More than 1000 Employees	934	75%

Table A-3
Employment by Industry, 1987

Industry	Number of Employees
Agriculture	3,208,000
Mining	818,000
Construction	7,456,000
Manufacturing	20,935,000
Transportation	7,880,000
Wholesale	4,580,000
Retail	18,812,000
Finance	7,763,000
Services	35,743,000
Government	5,246,000
Total	112,440,000

Source: U.S. Bureau of Labor Statistics.

Note: Figures may not add to total due to rounding.

Table A-4
Regional Designations for HIAA Employer Survey

Northeast	North Central	South	West
Maine	Ohio	Delaware	Montana
New York	Indiana	Maryland	Idaho
New Hampshire	Illinois	District of Columbia	Wyoming
New Jersey	Michigan	Virginia	Colorado
Vermont	Wisconsin	West Virginia	New Mexico
Pennsylvania	Iowa	North Carolina	Arizona
Massachusetts	Missouri	South Caroiina	Utah
Connecticut	North Dakota	Georgia	Nevada
Rhode Island	South Dakota	Florida	Washington
	Nebraska	Kentucky	Oregon
	Kansas	Tennessee	California
		Alabama	Alaska
		Mississippi	Hawaii
		Arkansas	
		Louisiana	
		Oklahoma	
		Texas	

Table A-5
Employment by Region, 1988

Region	Total Employment
Total	114,968,000
	Percent
Northeast	21.0%
North Central	24.8%
South	33.7%
West	20.5%

Source: U.S. Bureau of Labor Statistics.

The distribution of firms in our sample has been stratified and weighted to approximate the national distribution of firms, by industry type, across the nation as reported in the Statistical Abstracts of the United States, 1988.

Correlation Statistics

The following characteristics were found to be significantly correlated with firms that offer health insurance:

Table A-6
Pearson Correlation Statistics for
Firms that Offer Health Benefits

Predictive Variables	Correlation Coefficient	Prob > |T|*	Variable Definition
Size	0.4323	0.0001	1=Under 25, 2=25-99, 3=100-999, 4=1,000+
Region*			
Northeast	0.0693	0.0004	0/1 no//yes dummy
North Central	-0.0362	0.0640	0/1 no/yes dummy
South	-0.2199	0.2604	0/1 no/yes dummy
West	-0.0104	0.5933	0/1 no/yes dummy
Industry*			
Agriculture	0.0245	0.2092	0/1 no/yes dummy
Mining	-0.0084	0.6668	0/1 no/yes dummy
Construction	-0.0253	0.1956	0/1 no/yes dummy
Manufacturing	0.0859	0.0001	0/1 no/yes dummy
Transportation	-0.0406	0.0376	0/1 no/yes dummy
Wholesale	0.0536	0.0061	0/1 no/yes dummy
Retail	-0.1236	0.0001	0/1 no/yes dummy
Finance	0.0958	0.0001	0/1 no/yes dummy
Services	-0.0903	0.0001	0/1 no/yes dummy
Other Branches	0.2141	0.0001	0/1 no/yes
Metropolitan Location	0.0512	0.0088	0/1 no/yes
Age	0.0422	0.0308	1=10 or fewer years, 2=more than 10 years
Offered Health Benefits in 1988	0.3851	0.0001	0/1 no/yes
Employees Earning:			
Less Than $10,000	-0.2974	0.0001	continuous
$10,000-30,000	0.1488	0.0001	continuous
More Than $30,000	0.1567	0.0001	continuous
Percent Full-time	0.2013	0.0001	continuous
Turnover	-0.1037	0.0079	continuous
Sales per Employee	-0.0212	0.4767	continuous

Panel Disposition Code

Overall, there is no response bias introduced into our panel sample with regard to health coverage status. Those firms that dropped out of the sample are equally as likely to offer health coverage as those firms that remained in our panel for two consecutive years. However, the reasons firms dropped out of the panel sample were slightly different for firms with health coverage and firms without health coverage. Firms that did not offer health coverage in 1988 were more likely than firms that did offer health coverage in 1988 to drop out of our sample because the firm went out of business or the firm was non-locatable. The fact that firms that did not offer health coverage in 1988 were more likely to go out of business in 1989 than firms that did offer health coverage in 1988 further substantiates our finding that firms that provide health coverage do so when they have attained a sound financial base (i.e., they are able to afford it).

Although firms that do not offer health coverage are disproportionately more likely to drop out of our panel sample because they have gone out of business or they are non-locatable, these are not the primary reasons firms drop out of our panel. Firms that both offer and do not offer health coverage are most likely to drop out of our panel because they refuse to answer the survey in the second year or because the firm's benefits expert was not reached after several telephone calls.

Table A-7
Why Firms Dropped Out of the Panel

Reason	Offer Health Benefits	Do Not Offer Health Benefits
Refused	41%	36%
Maximum Calls	37%	23%
Non-locatable	5%	22%
Out of Business	4%	12%
No Knowledgeable Employee	4%	4%
Merger	2%	0%
Sample Discrepancy	5%	3%
Other	1%	0%

Appendix B

As noted in Chapter I, the percentages presented in the tables in the text are weighted statistics. The tables below duplicate some tables in the text—namely, those for which responses in some cells are only marginally large enough to be significant. In these tables the N value in each cell represents the unweighted number of firms responding. **The reader is cautioned that, since the percentages are weighted figures, it is invalid to reconfigure data by multiplying percentages times the N values.** As with tables in the main body of the document, asterisks within table cells indicate that the sample size is insufficient to determine statistical significance.

Chapter III Tables

Table III-1
Percent of Firms that Do and Do Not Offer Health Benefits, by Firm Size, 1989

Firm Size	Number Responding	Offer Health Benefits	Do Not Offer Health Benefits
Total	2621	42%	58%
Fewer than 5 Employees	570	26	74
5-9 Employees	169	54	46
10-24 Employees	173	72	28
25-49 Employees	76	90	10
50-99 Employees	87	97	3
100 or More Employees	1546	99	1

Table III-2
Percent of Firms Offering Health Benefits, by Industry, by Firm Size, 1989

	Percent of Labor Force^	Number Responding					Percent of Responding Firms Offering Coverage				
			Firm Size					Firm Size			
		Total	1-9	10-24	25-99	100+	All Firms	1-9	10-24	25-99	100+
TOTAL	100	2,608	734	170	163	1,541	42	39	72	90	99
Government***	5	157	4	4	19	130	99	100	75	100	100
Agriculture	3	32	21	4	3	4	50	40	*	*	*
Mining	1	21	6	0	1	14	37	*	**	*	*
Construction	7	160	100	24	7	29	39	29	83	*	90
Manufacturing	19	582	75	21	33	453	55	44	83	97	99
Transportation ^^	7	113	30	7	8	68	33	25	*	*	100
Wholesale Trade	4	160	62	20	17	61	51	39	83	*	98
Retail Trade	17	406	173	53	23	157	32	24	55	78	93
Finance^^	7	192	52	7	14	119	60	54	*	*	100
Business Services	32	785	211	30	38	506	35	29	69	90	99

* Sample size insufficient to detect significance.

** No responders in this cell.

***Excludes federal government employees.

^ Bureau of Labor Statistics, January 1988.

^^ Finance includes insurance and real estate; transportation includes communications and public utilities.

Note: Totals may not add to 100 due to rounding.

Table III-5
Percent of Firms Offering Health Benefits, by Age of Firm, 1989

Firm Age	Number Responding	Offer Health Benefits	Do Not Offer Health Benefits
10 or Fewer Years	781	42%	58%
More than 10 Years	1840	45%	55%

Table III-7
Percent of Employees Earning Less than $10,000 Annually at Firms that Do and Do Not Offer Health Benefits, by Industry, 1989

	Percent of Employees Earning Under $10,000 Annually			Number Responding		
	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
Total	23	13	31	2621	2048	573
Goods producing	18	10	25	795	650	145
Agriculture	23	*	*	32	19	13
Mining	16	*	*	21	17	4
Construction	18	8	25	160	80	80
Manufacturing	16	11	22	582	534	48
Service producing	26	14	33	1656	1232	424
Transportation	19	6	25	113	88	25
Wholesale Trade	24	9	39	160	118	42
Retail Trade	34	23	39	406	241	165
Finance	12	7	21	192	168	24
Services	24	13	30	785	617	168
Government	12	12	*	157	156	1

*Sample size insufficient to detect significance.

Table III-9A
Percent of Employees and Firms Experiencing Various Levels of Turnover, Firms with Fewer than 25 Employees, 1989

	Percent of Employees			Percent of Employers			Number of Firms Responding		
Percent Fluctuation	All Firms	Offered Health Benefits	Not Offered Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits	All Firms	Offer Health Benefits	Do Not Offer Health Benefits
0-29%	83	87	74	82	86	79	441	22	212
30-49%	7	7	8	6	7	6	69	39	30
50-69%	3	1	6	3	2	5	50	22	28
70-100%	7	4	12	8	5	10	95	39	56
Total	100	100	100	100	100	100	655	122	326

Note: Figures may not add to 100 due to rounding.

Table III-10
Labor Fluctuation Rates Among Small Firms with Various Proportions of Low-wage Workers

Percent of Employees Earning Under $10,000	Turnover Rate in Percent: All Firms	Turnover Rate in Percent: Offer Health Benefits	Turnover Rate in Percent: Do Not Offer Health Benefits	Number Responding: All Firms	Number Responding: Offer Health Benefits	Number Responding: Do Not Offer Health Benefits
0-29%	21	15	31	474	274	200
30-59%	35	22	43	79	33	46
60-100%	69	34	79	128	24	104

Table III-11
Labor Fluctuation Rates Among Firms that Do and Do Not Offer Health Benefits, by Industry, 1989

Industry	Turnover Rate in Percent: All Firms	Turnover Rate in Percent: Offer Health Benefits	Turnover Rate in Percent: Do Not Offer Health Benefits	Number Responding: All Firms	Number Responding: Offer Health Benefits	Number Responding: Do Not Offer Health Benefits
Total	36	23	47	681	331	350
Goods producing	47	26	69	195	99	96
Agriculture	34	*	*	32	10	9
Mining	*	*	*	4	2	2
Construction	67	31	95	99	42	57
Manufacturing	25	21	30	77	49	28
Service producing	31	22	39	477	224	253
Transportation	26	*	29	34	13	21
Wholesale Trade	28	17	42	67	39	28
Retail Trade	35	19	46	163	68	95
Finance, Insurance	17	13	*	47	35	12
Services	33	31	34	177	80	97
Government	*	*	*	5	4	1

*Sample size insufficient to detect significance.

Table III-12
Percent of Full-time Employees for Firms that Do and Do Not Offer Health Coverage, by Firm Size, 1989

Firm Size	Percent Full-time Employees: All Firms	Percent Full-time Employees: Offer Health Benefits	Percent Full-time Employees: Do Not Offer Health Benefits	Number Responding: All Firms	Number Responding: Offer Health Benefits	Number Responding: Do Not Offer Health Benefits
Fewer than 10 Employees	81	89	78	739	501	238
10-24 Employees	78	85	60	173	127	46
25-99 Employees	87	90	53	163	152	11
100 or More Employees	85	86	65	1546	1531	15

*Sample size insufficient to detect significance.

Table III-14
Percent of Employees Working for Firms that Offer Health Benefits, By Industry, by Firm Size, 1989

	Number Responding	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or More Employees
Total	2040	77	55	99
Goods producing	652	83	64	99
Agriculture	19	*	*	*
Mining	19	*	*	*
Construction	80	64	59	95
Manufacturing	534	91	68	100
Service producing	1232	74	51	98
Transportation	88	75	*	100
Wholesale	118	78	69	100
Retail	241	64	42	96
Finance	168	90	75	100
Services	617	78	47	99
Government	156	98	*	100

*Sample size insufficient to detect significance.

Table III-16
Percent of Full-time Employees Eligible for Coverage Among Employers Offering a Health Plan, by Industry, by Firm Size, 1989

	Number Responding	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or More Employees
Total	1952	83	84	82
Goods producing	633	86	85	87
Agriculture	19	*	*	*
Mining	17	*	*	*
Construction	80	79	80	77
Manufacturing	517	85	84	86
Service producing	1170	86	88	86
Transportation	85	88	*	85
Wholesale	116	88	90	84
Retail	222	70	79	65
Finance	161	96	95	96
Services	586	84	85	83
Government	149	92	*	92

*Sample size insufficient to detect significance.

Table III-18
Percent of Full-time Eligible Employees Covered by Employer-sponsored Plan, by Industry, by Firm Size, 1989

Industry	Number Responding	All Firms	Firm Size: Fewer than 25 Employees	Firm Size: 25 or More Employees
Total	1923	73	75	72
Goods producing	622	82	81	82
Agriculture	19	*	*	*
Mining	17	*	*	*
Construction	75	75	73	81
Manufacturing	511	82	77	83
Service producing	1152	75	78	74
Transportation	85	86	89	85
Wholesale	116	83	80	87
Retail	228	53	63	46
Finance	160	76	91	68
Services	563	72	74	72
Government	149	89	*	82

*Sample size insufficient to detect significance.

Chapter IV Tables

Table IV-10
Percent of Firms Citing "High Turnover" and "Expense" as a Very Important Reason for Not Offering Health Benefits, by Level of Turnover

Turnover Rate	Reasons for No Coverage: High Turnover	Reasons for No Coverage: Too Expensive	Number Responding
0-29%	13%	73%	231
30-49%	36%	72%	19
50-69%	17%	92%	14
70-100%	54%	81%	31

Chapter V Tables

Table V-1A
Percent of Firms Changing Coverage Status, by Firm Size, 1988 to 1989

Firm Size	Number Responding	Percent			
		Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Fewer than 10 Employees	240	100	24	6	10	59
10-24 Employees	51	100	67	2	12	18
25-99 Employees	69	100	90	2	5	3
100 or More Employees	725	100	100	0	0	0

Table V-1B
Percent of Firms in Each Size Category, By Coverage Status, 1988 to 1989

Firm Size	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
	Percent			
Total	100	100	100	100
Fewer than 10 Employees	48	93	81	95
10-24 Employees	24	5	17	5
25-99 Employees	7	1	1	0
100 or More Employees	22	0	0	0
	Number			
Number of Responses	874	19	38	154

Note: Figures may not add to 100 due to rounding.

Table V-2
Percent of Firms Changing Coverage Status, by Industry, 1988 to 1989

Industry	Number Responding	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Government	155	97	0	1	1
Agriculture	12	*	*	*	*
Mining	7	*	*	*	*
Construction	48	38	9	9	44
Manufacturing	188	42	3	10	44
Transportation	55	19	0	2	79
Wholesale Trade	49	46	0	6	48
Retail Trade	139	24	5	15	57
Finance/Insurance	88	39	4	20	38
Business Services	342	30	8	6	56

*Sample size insufficient to detect significance.

Table V-3
Percent of Firms Changing Coverage Status, by Region, 1988 to 1989

Region	Number Responding	Percent				
		Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Northeast	194	100	45	4	9	41
North Central	254	100	33	3	5	58
South	419	100	39	7	10	44
West	218	100	34	4	13	49

Note: Figures may not add to 100 due to rounding.

Table V-4
Percent of Firms Changing Coverage Status, by Presence of Other Branches, 1988 to 1989

	Number Responding	Percent				
		Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
Have Other Branches	474	100	77	5	7	11
No Other Branches	597	100	37	4	11	48

Table V-7A
Percent of Firms in Each Coverage Category, By Their Proportion of Low-wage Workers, 1988 to 1989

Percent of Employees Earning Less than $10,000	Number Responding	Percent				
		Total	Maintained Coverage	Dropped Coverage	Added Coverage	No Coverage Either Year
0 to 29%	912	100	46	3	11	40
30 to 59%	102	100	20	15	5	61
More than 60%	71	100	9	8	5	77

Chapter VI Tables

Table VI-13
Total Monthly Premium and Average Employer and Employee Share for Conventional Plans, by Industry, 1989

		Individual Coverage			Family Coverage		
	Number Responding	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)	Total Monthly Premium (Dollars)	Employer Share (Percent)	Employee Share (Percent)
Total	1620	$119	86	14	$268	74	26
Goods producing	530	$120	85	15	$271	77	23
Agriculture	15	*	*	*	*	*	*
Mining	16	*	*	*	*	*	*
Construction	59	$122	80	20	$279	74	26
Manufacturing	440	$117	86	14	$267	77	23
				100			100
Service producing	972	$118	87	13	$266	73	27
Transportation	79	$117	93	7	$265	77	23
Wholesale	102	$126	89	11	$270	75	25
Retail	205	$110	79	21	$253	71	29
Finance	136	$118	91	9	$280	71	29
Services	450	$120	87	13	$265	73	27
Government	118	$131	96	4	$271	71	29

*Sample size insufficient to detect significance.

Bibliography

A. Foster Higgins & Co., Inc. *Health Care Benefits Survey, 1989.* Princeton, N.J.: A. Foster Higgins & Co., Inc., 1990.

Andrews, E.S. *Pension Policy and Small Employers: At What Price Coverage?* Washington, D.C.: Employee Benefit Research Institute, 1989.

Barber, J. and K. Horkitz. "Features of Employer-sponsored Health Plans," *EBRI Issue Brief.* Washington, D.C.: Employee Benefit Research Institute, March 1990.

Braymen, S. "Americans Contribute More Toward Private Health Insurance," *EBRI Notes.* Washington, D.C.: Employee Benefit Research Institute, December 1989.

Chollet, D. "Update: Americans without Health Insurance," *EBRI Issue Brief.* Washington, D.C.: Employee Benefit Research Institute, July 1990.

Cox, B. and S. Cohen. "Methodological Issues For Health Care Surveys." New York: Marcel Dekker, Inc., 1985.

Dennis, W. *Small Business Employee Benefits, December 1985.* Washington, D.C.: National Federation of Independent Business Research and Education Foundation, 1985.

Drury, D., W. Dickens, and C. Martin. *Labor Turnover and Worker Mobility in Small and Large Firms: Evidence from the SIPP, Final Report.* Berkeley, CA: submitted to the Office of Advocacy, U.S. Small Business Administration, December, 1988.

Gabel, J., S. Di Carlo, S. Fink, and G. de Lissovoy. "Employer-Sponsored Health Insurance in America." *Health Affairs*, Summer, 1989: pp. 116-128.

Gabel, J., S. Fink, C. Lippert, J. Philhours, F. Kotler, and S. Di Carlo. "Trends in Managed Health Care," *Research Bulletin.* Washington, D.C.: Health Insurance Association of America, February, 1989.

Hall, C.L., and J.M. Kudor. *Small Business and Health Care: Results of a Survey.* Washington, D.C.: National Federation of Independent Business, April, 1990.

Iannacchione, V.G., "Weighted Sequential Hot Deck Imputation Macros," SAS Users Group International Conference, 1982.

ICF Incorporated. *Health Care Coverage and Costs in Small and Large Businesses, Final Report.* Washington, D.C.: submitted to the Office of Advocacy, U.S. Small Business Administration, April, 1987.

Kendrick, J.W. "Measurement of Output and Productivity in the Service Sector." In Robert P. Inman, ed., *Managing the Service Economy: Prospects and Problems.* New York: Cambridge University Press, 1985.

Korczyk, S.M. *The NRECA Survey of Health Coverage in Smaller Firms: Evidence and Policy Implications.* Washington, D.C.: submitted to the National Rural Electric Cooperative Association, June, 1988a.

Korczyk, S.M. *The NRECA Plans and the Minimum Health Benefits: A Comparison of Provisions and Costs.* Washington, D.C.: submitted to the National Rural Electric Cooperative Association, July, 1988b.

Malhotra, S., K.M. McCaffree, J.M. Wills, and J. Baker. *Employment Related Health Benefits in Private Nonfarm Business Establishments in the United States, Volume 1: Determinants of the Decision By Establishments to Offer Group Plans.* Seattle, Wash.: submitted by the Battelle Human Affairs Research Centers to the U.S. Department of Labor (J-9-P-7-0150), July, 1980.

Mellow, W. "Employer Size and Wages." *Review of Economics and Statistics* (August 1982): pp. 495-501.

Monheit, A. C. and P.F. Short. "Mandating Health Coverage For Working Americans." *Health Affairs*, Winter, 1989: pp. 22-38.

Personick, V.A. "Industry Output and Employment Through the End of the Century." *Monthly Labor Review*, September, 1987: pp. 30-45.

Piacentini, J.S. "New Findings on Work Force Trends Challenge Common Perceptions." *EBRI Notes*. Washington, D.C.: Employee Benefit Research Institute, February, 1990.

Service Employees International Union. *Access to Health Care: A Survey of Service Workers*. Washington, D.C.: Service Employees International Union, AFL-CIO, CLC, 1987.

Sullivan, C.B., S. DiCarlo, J. Gabel, T. Rice. *Technical Methodology: HIAA Survey of Employer-Sponsored Health Benefit Plans*. Washington, D.C.: Health Insurance Association of America, February, 1990.

U.S. Department of Labor, Bureau of Labor Statistics, *Employee Benefits in Medium and Large Firms, 1985*. Washington, D.C.: U.S. Government Printing Office, July, 1986.

U.S. Department of Labor, Bureau of Labor Statistics. *1977 Expenditures For Employee Compensation Survey*. Washington, D.C.: U.S. Government Printing Office, 1978.

U.S. Small Business Administration. *Small Business in the American Economy*. Washington, D.C.: U.S. Government Printing Office, 1988.

U.S. Small Business Administration. *The State of Small Business: A Report to the President*. Washington, D.C.: U.S. Government Printing Office, 1986.

U.S. Small Business Administration. *The State of Small Business: A Report to the President*. Washington, D.C.: U.S. Government Printing Office, 1987.

U.S. Small Business Administration. *The State of Small Business: A Report to the President*. Washington, D.C.: U.S. Government Printing Office, 1989.

Health Insurance Association of America
1025 Connecticut Avenue, NW
Washington, DC 20036